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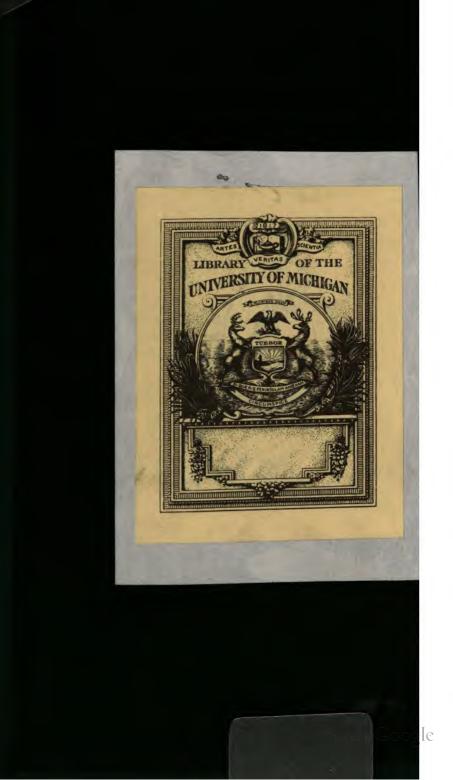
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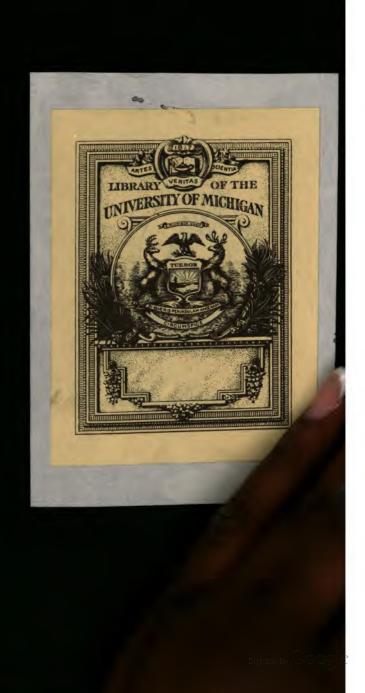
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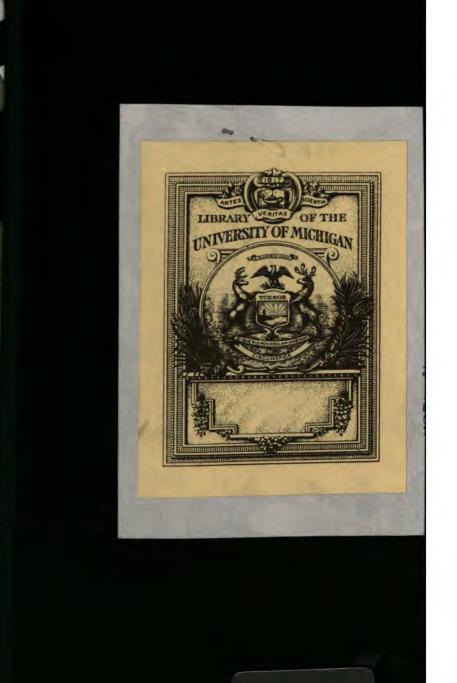




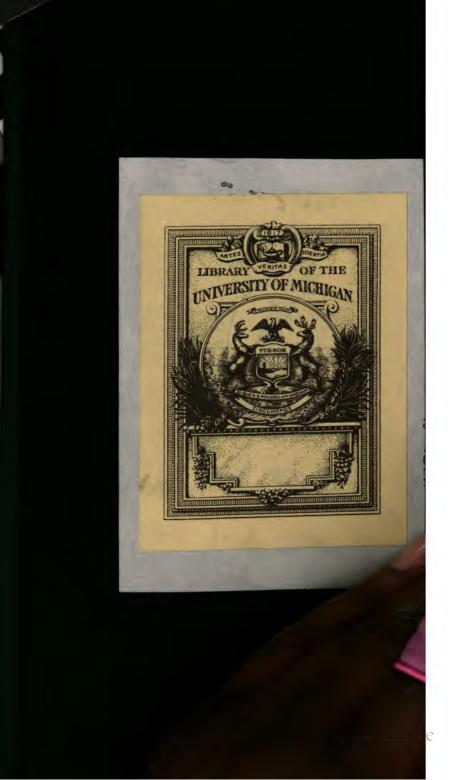
















THE REV. JOHN HUTCHINS, M.A.
(THE DOBSET COUNTY HISTORIAN.)

PROCEEDINGS

OF THE

DORSET NATURAL HISTORY

AND

Antiquarian field glub.

EDITED BY

HERBERT PENTIN.

VOLUME XXVII.

Dorchester:
PRINTED AT THE "DORSET COUNTY CHRONICLE" OFFICE.

1906

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The Marian Land College of The College of

Tiller & Committee Committ

CONTENTS.

Rules of the Club						PAGE
			Manubana	••	••	v.
List of Officers, Honora				W-1 VVV	.	x.
List of New Members el		the pu	idication of	VOI. AAV	1	xxii.
Publications of the Club		••		••	••	xxvi.
THE PROCEEDINGS OF T		luring	the Session	1905-1906-	-	
First Winter Meeting	_	••	••	• •	••	xxvii.
Second Winter Mee		••	••	••	••	xxxi.
Annual General Me	eting	• •	• •	••	• •	XXXV.
MEETING AT WOOL, BIN	DON ABBE	Y, AND	LULWORTH	CASTLE		xxxix.
Wool Manor House	and Barn	••	••			,,
Bindon Abbey	••		••		••	xl.
Wool Church				••	••	xliii.
Lulworth Castle			••	••		,,
Business Meeting			••	••	••	xlvi.
MEETING AT WIMBORNE	BADRURS	RING	R. AND KING	STON LACY		zlvii.
Wimborne Minster			.,	••		"
Badbury Rings					•••	" 1.
Kingston Lacy	••		•••			lii.
MEETING AT FROME AND	LOWGIE				•••	lvii.
			 	3:4	••	
The Hon. Tressurer's St		I IVecei	pus and Exp	enaiture	• •	l vi ii.
The Hon. Secretary's Address of			••	••	••	lix.
Anniversary Address of	the Presid	ent		••	••	lx.
Cross-legged Effigies in	Dorset, Pa	rt I 1	v Sidnev H	eath		1
Old Dorset Songs, by Re					• • • • • • • • • • • • • • • • • • • •	24
The Rolls of the Court					Waste.	
alias Monkton,					•••	44
On Some New and Ra	re British	Arac	hnida, by I	dev. O. Pi	ckard-	
Cambridge, M.	A., F.R.S.,	acc.	n n:: a	**	D D	72
The Church Bells of Dor F.S.A. (with No						93
Returns of Rainfall, &c.					•	138
Worgret Hill and the V					logton	100
M.A., F.B.S.,		A WOOL 1	suppry, by	W. H. Huu	Tesmit,	147
Ophiodes or Pseudophia		nv G. T	. J. Crallan	. M.B.	••	176
On a New Chimseroid					hv A.	-,0
Smith Woodwa	rd, LL.D.	F.R.S	of the Br	itish Museu	ım,	181
On a Pycnodont Fish of						
by A. Smith	Woodwar	d, LL.	D., F.R.S.	, of the	British	
Museum						183
The Ringed Plover (Æ			by W. Pari	kmson Cur	is	188
Dorset Chantries, Part					. ::	214
The Ancient Memorial	Brasses o	f Dors	et, Part II	J., by W.	de C.	004
Prideaux	 T. G.:!! 1	··	W D 'B G	• • •	••	234
Roman Pavements, by I					T71: . A	239
Report on First Appea Flowering of	rances or Planta in	Dirus,	during 100	u., and the	on M	
Richardson, B.	а.и.о ш А.	- OTBEL	aming 190	o, na 14618	OH 1887	259
Some Recent and Forth		oks	••	••	•••	271
Index to Vol. XXVII.			••	••	••	278
A General Index of the I	Paners, &c.	. publis	shed in Vol.	I.—Vol. X	XVII	410
by Harry Poun	cy.	, <u>r</u>			,	276

INDEX TO PLATES & ENGRAVINGS.

	PAGE OR TO
THE REV. JOHN HUTCHINS, M.A. (the Dorset County Historian)	Frontispiece.
THE RUINS OF BINDON ABBEY	xl.
THE GRAVE-SLAB OF ABBOT RICHARD DE MANERS, OF BINDON	zlii.
DOOR AT LULWOETH CASTLE, FORMERLY AT BINDON ABBEY; THE GRAVE-SLAB OF ABBOT RICHARD DE MANERS, OF BINDON;	
CRESSET-STONE IN WOOL CHURCH	xliii.
THE ETHELBED BRASS IN WIMBORNE MINSTER	1.
BADBURY RINGS	li.
CROSS-LEGGED EFFIGIES IN DORSET—	
Effigy at Bridport (right side and left side)	8
Effigy on S. side of Chancel, Lady S. Mary Church, Wareham	12
Effigy on N. side of Chancel, Lady S. Mary Church, Wareham	14
Effigy in S. Peter's Church, Dorchester	16
Shrine at Mappowder	21
NEW AND RARE BRITISH ARACHNIDA, 1 Plate with Explanation	72
THE CHURCH BELLS OF DORSET—	100
Dumb Bell Gallery, Knowle House; Dumb Bell	103
WORGERT HILL AND THE WAREHAM WATER SUPPLY—	140
Fig. 1.—Plan of Worgret Hill contoured	148
,, 2.—Section Along the Line A-B of the Plan (Fig. 1)	152
,, 3.—Eastern Face of the Excavation in the Plateau- Gravel for the Reservoir at Worgret, Jan., 1905	160
,, 4.—Tabular Column of Worgret Well and Borehole	
attached to the Report	162
,, 5.—Worgret Hill (South-west Slope)	169
CHIMMROID FIN-SPINE, with Explanation	181
MESODON BARNESI, with Explanation	183
Mesodon macropterus	186
THE RINGED PLOVER (Ægialitis hiaticola)—	
Plate I.—Kingdom Animalia	188
,, II Order XII Charadriiformes	190
,, III.—Family Charadriide	192
., IV.—(a.) Wings of Ægialitis hiaticola; (b.) Wings	
of Vanellus cristatus	193
,, V.—Sub-Family Charactrines	194
,, VI.—Ægialitis hiaticola (Summer)	200 201
WIII Nest of Chinala Datahin's Doint Dools Hanhaun	201
,, IX.—Nest on a Pitbank, Doulton's Clay Works,	202
Poole Harbour	203
,, X.—Nest on a Cliff Ledge, Round Island, Poole	
Harbour	204
,, XI.—Nest and Eggs on Shingle, Green Island, Poole	005
Harbour	205
,, XII.—Nest and Eggs amongst Shingle and Seaweed, Furze Island, Poole Harbour	206
,, XIII.—Nest and Eggs with Cockle-Shells, Patchin's	200
Point, Poole Harbour	207
, XIVNest and Eggs with Heather Stems, Round	
Island, Poole Harbour	208
,, XVEggs of Ægialitis hiaticola	209
MEMORIAL BRASSES—John Horsey, and Elizabeth, his Wife	236
ROMAN PAVEMENTS-Masculine or Solar Symbol of Fecundity;	
Maternal or Terrestrial Symbol of Fecundity; Feminine	674

RULES

OF

THE DORSET NATURAL HISTORY AND ANTIQUARIAN FIELD CLUB.

OBJECT AND CONSTITUTION.

1.—The Club shall be called The Dorset Natural History and Antiquarian Field Club, and shall have for a short title The Dorset Field Club.

The object of the Club is to promote and encourage an interest in the study of the Physical Sciences and Archeology generally, especially the Natural History of the County of Dorset and its Antiquities, Prehistoric records, and Ethnology. It shall use its influence to prevent, as far as possible, the extirpation of rare plants and animals, and to promote the preservation of the Antiquities of the County.

2.—The Club shall consist of (i.) three Officers, President, Honorary Secretary, and Honorary Treasurer, who shall be elected annually, and shall form the Executive body for its management; (ii.) Vice-Presidents, of whom the Honorary Secretary and Treasurer shall be two, ex officio; (iii.) The Honorary Editor of the Annual Volume of Proceedings; (iv.) Ordinary Members; (v.) Honorary Members. The President, Vice-Presidents, and Editor shall form a Council to decide questions referred to them by the Executive and to elect Honorary Members. The Editor shall be nominated by one of the incoming Executive and elected at the Annual Meeting.

There may also be one or more Honorary Assistant Secretaries, who shall be nominated by the Honorary Secretary, seconded by the President or Treasurer, and elected by the Members at the Annual Meeting.

Members may be appointed by the remaining Officers to fill interim vacancies in the Executive Body until the following Annual Meeting.

The number of the Club shall be limited to 400, power being reserved to the Council to select from the list of candidates persons, whose membership they may consider to be advantageous to the interests of the Club, to be additional Members.

PRESIDENT AND VICE-PRESIDENTS.

3.—The President shall take the chair at all Meetings, and have an original and a casting vote on all questions before the Meeting. In addition to the two ex officio Vice-Presidents, at least three others shall be nominated by the President, or, in his absence, by the Chairman, and elected at the Annual Meeting.

HON. SECRETARY.

4.—The Secretary shall perform all the usual secretarial work; cause a programme of each Meeting to be sent to every Member seven days at least before such Meeting; make all preparations for carrying out meetings and, with or without the help of a paid Assistant Secretary or others, conduct all Field Meetings. On any question arising between the Secretary (or Acting Secretary) and a Member at a Field Meeting, the decision of the Secretary shall be final.

The Secretary shall receive from each Member his or her share of the day's expenses, and thereout defray all incidental costs and charges of the Meeting, rendering an account of the same before the Annual Meeting to the Treasurer; any surplus of such collection shall form part of the General Fund, and any deficit be defrayed out of that Fund.

HON. TREASURER.

5.—The Treasurer shall keep an account of Subscriptions and all other moneys of the Club received and of all Disbursements, rendering at the Annual General Meeting a balance sheet of the same, as well as a general statement of the Club's finances. He shall send copies of the Annual Volume of Proceedings for each year to Ordinary Members who have paid their subscriptions for that year (as nearly as may be possible, in the order of such payment), to Honorary Members, and to such Societies and individuals as the Club may, from time to time, appoint to receive them. He shall also furnish a list at each Annual Meeting, containing the names of all Members in arrear, with the amount of their indebtedness to the Club. He shall also give notice of their election to all New Members.

ORDINARY MEMBERS.

- 6.—Ordinary Members are entitled to be present and take part in the Club's proceedings at all Meetings, and to receive the published "Proceedings" of the Club, when issued, for the year for which their subscription has been paid.
- 7.—Every candidate for admission shall be nominated in writing by one Member and seconded by another, to one of whom at least he must be personally known. He may be proposed at any Meeting, and shall receive programmes of Meetings and exercise all the functions of a Member, except voting and bringing friends to Meetings. His name shall appear in the programme of the first following Meeting at which a Ballot is held, when he shall be elected by ballot, one black ball in six to exclude. Twelve Members shall form a quorum for the purpose of election. A Ballot shall be held at the Annual and Winter Meetings, and may be held at any other Meeting, should the Executive so decide, notice being given in the programme.
- 8.—The Annual Subscription shall be 10s., which shall become due and payable in advance on the 1st of January in each year. Subscriptions paid on

election after September in each year shall be considered as subscriptions for the following year, unless otherwise agreed upon by such Member and the Treasurer. Every Member shall pay immediately after his election the sum of ten shillings as Entrance Fee, in addition to his first Annual Subscription.

- 9.—No person elected a Member shall be entitled to exercise any privilege as such until he has paid his Entrance Fee and first Subscription, and no Member shall be entitled to receive a copy of the "Proceedings" for any year until his Subscription for that year has been paid.
- 10.—A registered letter shall be sent by the Hon. Treasurer to any Member whose Subscription is in arrear at the date of any Annual Meeting, demanding payment within 28 days, failing which he shall cease to be a Member of the Club, but shall, nevertheless, be liable for the arrears then due.
- 11.—Members desiring to leave the Club shall give notice of the same in writing to the Treasurer (or Secretary), but, unless such notice is given before the end of January in any year, they shall be liable to pay the Annual Subscription due to the Club on and after January 1st in that year.

HONORARY MEMBERS.

12.—Honorary Members shall consist of persons eminent for scientific or natural history attainments, and shall be elected by the Council. They pay no subscription, and have all the privileges of Ordinary Members, except voting.

MEETINGS.

- 13.—The Annual General Meeting shall be held as near the first week in May as may be convenient; to receive the outgoing President's Address (if any) and the Treasurer's financial report; to elect the Officers and Editor for the ensuing year; to determine the number (which shall usually be three or four), dates, and places of Field Meetings during the ensuing summer, and for general purposes.
- 14.—Two Winter Meetings shall usually be held in or about the months of December and February for the exhibition of Objects of Interest (to which not more than one hour of the time before the reading of the Papers shall be devoted), for the reading and discussion of Papers, and for general purposes.

The Dates and Places of the Winter and Annual Meetings shall be decided by the Executive.

15.—A Member may bring Friends to the Meetings subject to the following restrictions:—No person (except the husband, wife, or child of a Member), may attend the Meeting unaccompanied by the Member introducing him, unless such Member be prevented from attending by illness, and no Member may take with him to a *Field Meeting* more than one Friend, whose name and address must be submitted to the Hon. Secretary and approved by him or the Executive.

The above restrictions do not apply to the Executive or to the Acting Secretary at the Meeting.

16.— Members must give due notice (with prepayment of expenses) to the Hon. Secretary of their intention to be present, with or without a Friend, at any Field Meeting, in return for which the Secretary shall send to the Member a card of admission to the Meeting, to be produced when required. Any Member who, having given such notice, fails to attend will be liable only for any expenses actually incurred on his account, and any balance will be returned to him on application. The sum of 1s., or such other amount as the Hon. Secretary may consider necessary, shall be charged to each person attending a Field Meeting, for Incidental Expenses.

17.—The Executive may at any time call a Special General Meeting of the Members upon a written requisition (signed by Eight Members) being sent to the Honorary Secretary. Any proposition to be submitted shall be stated in the Notice, which shall be sent to each Member of the Club not later than seven days before the Meeting.

PAPERS.

18.—Notice shall be given to the Secretary, a convenient time before each Meeting, of any motion to be made or any Paper or communication desired to be read, with its title and a short sketch of its scope or contents. The insertion of these in the Programme is subject to the consent of the Officers of the Club, or any two of them.

19.—The Publications of the Club shall be in the hands of the Executive, who shall appoint annually Three or more Ordinary Members to form with them and the Editor a Publication Committee for the purpose of deciding upon the contents of the Annual Volume. These contents shall consist of original papers and communications written for the Club, and either read, or accepted as read, at a General Meeting; also of the Secretary's Reports of Meetings, the Treasurer's Financial Statement and Balance Sheet, a list to date of all Members of the Club, and of those elected in the current or previous year, with the names of their proposers and seconders. The Annual Volume shall be edited by the Editor subject to the direction of the Publication Committee.

20.—Twenty-five copies of his paper shall be presented to each author whose communication shall appear in the volume as a separate article, on notice being given by him to the Publisher to that effect.

THE AFFILIATION OF SOCIETIES AND LIBRARIES TO THE CLUB.

21.—Any Natural History or Antiquarian Society in the County may be affiliated to the Dorset Field Club on payment of an annual fee of Ten Shillings, in return for which the annual volume of the *Proceedings* of the Field Club shall be sent to such Society.

Every affiliated Society shall send the programme of its Meetings to the Hon. Sec. of the Field Club, and shall also report any discoveries of exceptional interest. And the Field Club shall send its programme to the Hon. Sec. of each affiliated Society.

The Members of the Field Club shall not be eligible, ipso facto, to attend any Meetings of affiliated Societies, and the Members of any affiliated Society shall not be eligible, ipso facto, to attend any Meetings of the Field Club. But any Member of an affiliated Society shall be eligible to read a paper or make an exhibit at the Winter Meetings of the Field Club at Dorchester.

Any Public Library, or Club or School or College Library, in England or elsewhere, may be affiliated to the Dorset Field Club on payment of an annual fee of Ten Shillings, in return for which the annual volume of the *Proceedings* of the Field Club shall be sent to such Library.

NEW RULES.

22.—No alteration in or addition to these Rules shall be made except with the consent of a majority of three-fourths of the Members present at the Annual General Meeting, full notice of the proposed alteration or addition having been given both in the current Programme and in that of the previous Meeting.



The Dorset Natural History and Antiquarian Field Club.

INAUGURATED MARCH 26th, 1875.

President:

NELSON M. RICHARDSON, Esq., B.A.

Vice-Presidents:

THE LORD EUSTACE CECIL, F.R.G.S.
REV. HERBERT PENTIN, M.A., F.S.A. Ed. (Hon. Secretary and Editor).

CAPTAIN G. R. ELWES, J.P. (Hon. Treasurer).
REV. W. MILES BARNES, B.A.

W. H. HUDLESTON, Esq., M.A., F.R.S., F.L.S., F.G.S. REV. J. C. M. MANSEL-PLEYDELL, M.A. H. COLLEY MARCH, Esq., M.D., F.S.A.

REV. O. PICKARD-CAMBRIDGE, M.A., F.R.S., F.Z.S. R. BOSWORTH SMITH, Esq., M.A.

HON. MORTON G. STUART-GRAY, M.A., F.S.A. Ed., F.G.S.

Hon. Editor:

Rev. Herbert Pentin, M.A., F.S.A. Ed., Milton Abbey Vicarage, Blandford.

Executive Body:

NELSON M. RICHARDSON, Esq., B.A. (President).

Rev. HERBERT PENTIN, M.A., F.S.A. Ed. (Hon. Secretary and Editor), Milton Abbey Vicarage, Blandford.

Captain G. R. ELWES, J.P. (Hon. Treasurer), Bossington, Bournemouth.

Publication Committee:

The Executive, H. B. Middleton, Esq., Dr. Colley March, and E. R. Sykes, Esq.

Honorary Members:

W. CARRUTHERS, Esq., F.R.S., F.G.S., F.L.S., British Museum (Nat. Hist.), South Kensington.

Rev. OSMOND FISHER, M.A., F.G.S., Graveley, Huntingdon.

A. J. JUKES-BEOWNE, Esq., F.G.S., Floriston, Cleveland Road, Torquay. R. LYDEKKEE, Esq., F.R.S., The Lodge, Harpenden, Herts.

ALFRED NEWTON, Esq., M.A., F.R.S., Professor of Zoology and Comparative Anatomy, Magdalen College, Cambridge.

CLEMENT REID, Esq., F.R.S., 28, Jermyn Street, London, S.W. A. SMITH WOODWARD, Esq., LL.D., F.R.S., F.G.S., British Museum (Nat. Hist.), South Kensington, London.

Mr. A. M. Wallis, 29, Mallams, Portland.

Sir WM. THISELTON DYER, K.C.M.G., C.I.E., F.R.S., The Ferns, Witcombe, Gloucester.

Sir Frederick Treves, Bart., G.C.V.O., C.B., LL.D., 6, Wimpole Street, Cavendish Square, London, W.

LIST OF MEMBERS

OF THE

Porset Natural History & Antiquarian Field Club.

Year Electio	-	riginal Member.")
1903	The Most Hon. the Marquis of	
	Salisbury	The Manor House, Cranborne
1903	The Most Hon. the Marchioness	·
	of Salisbury	The Manor House, Cranborne
1902	The Right Hon. the Earl of	
	Shaftesbury	St. Giles, Wimborne
1884	The Right Hon. Lord Eustace	
	Cecil, F.R.G.S. (Vice-President)	Lytchett Heath, Poole
1903	The Right Hon. the Lady Eustace	
	Cecil	Lytchett Heath, Poole
1904	The Right Reverend the Lord	
	Bishop of Durham, D.D.	Auckland Castle, Bishop's Auckland
1890	The Right Reverend the Lord	
	Bishop of Salisbury, D.D.	The Palace, Salisbury
1892	The Right Reverend the Lord	
	Bishop of Worcester, D.D.	Hartlebury Castle, Kidderminster
1889	The Right Hon. Lord Digby	Minterne, Dorchester
1895	The Right Hon. Lord Walsing-	
	ham, F.R.S.	Merton Hall, Thetford, Norfolk
1903	The Right Hon. Lord Chelmsford	Governor's House, Brisbane, Queens- land, Australia
1893	Acland, Captain John E.	Wollaston House, Dorchester
1892	Acton, Rev. Edward, B.A.	Iwerne Minster Vicarage, Blandford
1905	Aldis, T. S., Esq., M.A.	Bowhayes, Bothenhampton, Bridport
1899	Aldridge, Mrs. Selina	Shirley, Dorchester Road, Weymouth
1892	Allhusen, Wilton, Esq.	Pinhay, Lyme Regis
1906	Atkins, F. T., Esq., M.R.C.S.,	
	L.R.C.P. Ed.	Cathay, Alumhurst Road, Bourne- mouth
1906	Baker, Miss	Ranston, Blandford
1902	Baker, Sir E. Randolf, Bart.	Ranston, Blandford
1887	Bankes, W. Albert, Esq.	Wolfeton House, Dorchester
1884	Bankes, Eustace Ralph, Esq.	Norden House, Corfe Castle, Wareham
1887	Bankes, Rev. Canon, M.A.	The Close, Salisbury

1906	Bankes, Mrs.	Kingston Lacy, Wimborne
1902	Barkworth, Edmund, Esq.	South House, Piddletrenthide
1904	Barlow, Major C. M.	Southcot, Charminster
1894	Barnes, Mrs. John Hes	Summerhayes, Blandford
1889	Barnes, Rev. W. M., B.A., R.D.	
	(Vice-President)	Monkton Rectory, Dorchester
1903	Barnes, F. J., Esq.	Rodwell, Weymouth
1903	Barnes, Mrs. F. J.	Rodwell, Weymouth
1884	Barrett, W. Bowles, Esq.	2, Belfield Terrace, Weymouth
1906	Barrow, Richard, Esq.	Sorrento House, Sandecotes, Parkstone
1895	Bartelot, Rev. R. Grosvenor, M.A.	Fordington St. George Vicarage, Dorchester
1886	Baskett, Rev. C. R.	Bristwith Vicarage, Ripley, Leeds
1893	Baskett, S. R., Esq.	Evershot
1904	Baskett, Mrs. S. R.	Evershot
1889	Batten, H. B., Esq.	∆ldon, Yeovil
1888	Beckford, F. J., Esq.	Witley, Parkstone
0. M .	Bond, N., Esq.	Holme, Wareham
1903	Bond, Gerald Denis, Esq.	Holme, Wareham
1906	Bond, Nigel de M., Esq., B.A.	156, Ashley Gardens, London, S.W.
1893	Bond, Wm. H., Esq.	Tyneham, Wareham
1903	Bond, Wm. Ralph G., Esq.	Tyneham, Waredam
1894	Bonsor, Geo., Esq.	The Gables, Spetisbury
1906	Bovey, T. W. W., Esq., L.R.C.P.,	
	M.R.C.S.	The Vicarage, Abbotsbury
1889	Bower, H. Syndercombe, Esq.	Fontmell Parva, Shillingstone, Blandford
1900	Bower, Rev. Charles H. S., M.A.	Hinton St. Mary, Sturminster Newton, Dorset
1903	Bramble, LieutColonel James	
	Roger, F.S.A.	Seafield, Weston-super-Mare
1898	Brandreth, Rev. F. W., M.A.	Buckland Newton, Dorchester
1901	Brennand, John, Esq.	Belmont, Parkstone
1906	Brennand, W. A. B., Esq.	Sturminster Newton
1885	Brennand, W. E., Esq.	Blandford
1905	Bromley, Miss	Stinsford Vicarage, Dorchester
1898	Brown, J., Esq.	Maiden Newton
1900	Brown, Miss	Belle Vue, Shaftesbury
1891	Browning, Benjamin, Esq., M.D.,	
	Staff-Surgeon R.N., Fellow of	
	the Sanitary Institute of Great	
	Britain	Bec-en-Hent, Yetminster, Sherborne
1895	Brymer, Rev. J. G., M.A.	Childe Okeford Rectory, Blandford
1900	Bullen, Colonel John Bullen	
	Symes	Catherston Leweston, near Charmouth

1004	n , 30	
1894	Burt, Miss Emma	Purbeck House, Swanage
1897	Busk, W., Esq., A.R.C.A.	West Walks, Dorchester
1905	Buak, W., Esq.	Wraxall Manor, Cattistock, Dorchester
1905	Busk, Mrs. W.	Wraxall Manor, Cattistock, Dorchester
1901	Bussell, Miss Katherine	Thorneloe, Bridport
1906	Butler, Rev. Pierce Armar	East Stoke Rectory, Wareham
1903	Butler-Bowden, Bruno, Esq.	Upwey House, Upwey
1903	Butler-Bowden, Mrs. Bruno	Upwey House, Upwey
1906	Butt, Rev. W., M.A.	Kempsford Vicarage, Fairford, Gloucester
1903	Buttery, Miss E. M. E.	Lodmoor House, Weymouth
1891	Carter, William, Esq.	The Hermitage, Parkstone
1893	Chadwick, Mrs.	Chetnole, Sherborne
1905	Chadwyck-Healey, the Worship-	
	ful Chancellor C. E. H., M.A.,	
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1903	Champ, A., Esq.	St. Katherine's, Bridport
1883	Chudleigh, Rev. R. Augustine,	
	M.A.	West Parley Rectory, Wimborne
1897	Chudleigh, Mrs.	West Parley Rectory, Wimborne
1901	Chudleigh, Miss W. M.	West Parley Rectory, Wimborne
1894	Church, Colonel Arthur	St. Alban's, Rodwell, Weymouth
1904	Clapcott, Miss	South Walks, Dorchester
1892	Clarence, Lovell Burchett, Esq.	Coaxden, Axminster
1895	Clarke, R. Stanley, Esq.	Rotherhill, Stedham, Midhurst, Sussex
1883	Colfox, Miss A. L.	Westmead, Bridport
1878	Colfox, T. A., Esq.	Coneygar, Bridport
о.ж.	Colfox, W., Esq., B.A.	Westmead, Bridport
1905	Collins, Stephen, Esq., M.P.	Harborne, St. Ann's Hill, Wandsworth, S.W.
1905	Colville, H. K., Esq.	Uploders House, Bridport
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1903	Cornish-Browne, C. J., Esq.	Came House, Dorchester
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1886	Crespi, A. J. H., Esq., B.A., M.R.C.P.	Wimborne
1879	Crickmay, G. R., Esq., F.R.I.B.A.	Weymouth
1884		Baillie House, Sturminster Marshall,
	•	Wimborne

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Filliter, Rev. W. D., M.A.	East Lulworth Vicarage, Wareham
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O.M.	Fletcher, W. J., Esq., F.R.I.B.A.	The Chantry, Wimborne
1906	Fletcher. Mrs. W. J.	The Chantry, Wimborne
1885	Floyer, G. W., Esq., B.A.	West Stafford, Dorchester
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1897	Forde, Henry, Esq.	Luscombe, Parkstone
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1893	Forrester, Mrs.	Bryanston, Blandford
1905	Forrester, Miss S. Blanche J.	Bryanston, Blandford
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1903	Fry, George S., Esq.	11, The Hawthorns, Church End, Finchley
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о.м.	Fyler, Captain J. W. T.	Hethfelton, Wareham
0.M.	Galpin, G., Esq.	Clarendon Court, Clarendon, Road,
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1896	George, C. E. A., Esq.	Fleet House, near Weymouth
1896	George, Mrs.	Fleet House, near Weymouth
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1898	Glyn, LieutGeneral J. P. Carr	North Leigh, Wimborne
о.ж.	Glyn, Sir R. G., Bart.	Gaunts Huse, Wimborne
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1993	Gordon, George H., Esq.	North Cheriton, Templecombe, Somer- set
1883	Gorringe, Rev. P. R., M.A.	Manston Rectory, Blandford
1903	Gorringe, Mrs. P. R.	Manston Rectory, Blandford
1888	Greves, Hyla, Esq., M.D.	Rodney House, Bournemouth
1888	Griffin, F. C. G., Esq., M.A., M.B.	12, Royal Terrace, Weymouth
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1886	Hansford, Charles, Esq.	Dorchester
1901	Hardwick, Stewart, Esq.	21, Commercial Road, Bournemouth
1890	Harrison, Rev. F. T., M.A.	Burton Bradstock Rectory, Bridport
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Α.	4.	
1897	Harston, Comdr. F. A. (late R. N.)	Newlands, Glendinning Avenue, Wey- mouth
1896	Hart-Dyke, Rev. Canon P., M.A.	Lullingstone, Wimborne
1900	Hasluck, Rev. Ernest, M.A.	Handley Vicarage, Salisbury
1898	Hassell, Miss	Westfield Lodge, Parkstone
1894	Hawkins, W., Esq., M.R.C.S.	Broadway, Dorchester
1903	Hawkins, Mrs. H.	Rew House, Martinstown, Dorchester
1903	Hawkins, Miss Isabel	Wyke, Sherborne
1893	Hayne, R., Esq.	Fordington House, Dorchester
1889	Head, J. Merrick, Esq., M.R.I.A.,	• •
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1905	Heath, Sidney H. S., Esq.	The Woodlands, Weymouth
1906	Heaton, Guy, Esq., M.A.	St. David's, Bournemouth West
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	Agnus'')	Northport House, Wareham
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1902	Hine, R., Esq.	Beaminster
1885	Hogg, B. A., Esq.	Dorchester
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	President)	West Holme, Wareham
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1888	Huntley, H. E., Esq.	Charlton House, Blandford
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1903	Jenkins, Rev. T. Leonard, M.A.	Leigh Vicarage, Sherborne
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1902	Lafontaine, A. C. de, Esq., F.S.A. Langdon, Miss M.	
1902		Athelhampton, Dorchester
	Langdon, Miss M.	Athelhampton, Dorchester Parrock's Lodge, Chard
1901	Langdon, Miss M. Langford, Rev. Canon, M.A.	Athelhampton, Dorchester Parrock's Lodge, Chard Belle Vue, Higher Hooe, Plymouth The Lindens, Sturminster Newton,
1901 1883	Langdon, Miss M. Langford, Rev. Canon, M.A. Leach, J. Comyns, Esq., M.D.	Athelhampton, Dorchester Parrock's Lodge, Chard Belle Vue, Higher Hooe, Plymouth The Lindens, Sturminster Newton,
1901 1883	Langdon, Miss M. Langford, Rev. Canon, M.A. Leach, J. Comyns, Esq., M.D. Lee, W. H. Markham, Esq.,	Athelhampton, Dorchester Parrock's Lodge, Chard Belle Vue, Higher Hooe, Plymouth The Lindens, Sturminster Newton, Blandford
1901 1883 1901	Langdon, Miss M. Langford, Rev. Canon, M.A. Leach, J. Comyns, Esq., M.D. Lee, W. H. Markham, Esq., I.S.M.	Athelhampton, Dorchester Parrock's Lodge, Chard Belle Vue, Higher Hooe, Plymouth The Lindens, Sturminster Newton, Blandford Wyke Regis, Weymouth
1901 1883 1901 1900	Langdon, Miss M. Langford, Rev. Canon, M.A. Leach, J. Comyns, Esq., M.D. Lee, W. H. Markham, Esq., I.S.M. Legge, Miss Jane	Athelhampton, Dorchester Parrock's Lodge, Chard Belle Vue, Higher Hooe, Plymouth The Lindens, Sturminster Newton, Blandford Wyke Regis, Weymouth Allington Villa, Bridport
1901 1883 1901 1900 1899	Langdon, Miss M. Langford, Rev. Canon, M.A. Leach, J. Comyns, Esq., M.D. Lee, W. H. Markham, Esq., I.S.M. Legge, Miss Jane Le Jeune, H., Esq.	Athelhampton, Dorchester Parrock's Lodge, Chard Belle Vue, Higher Hooe, Plymouth The Lindens, Sturminster Newton, Blandford Wyke Regis, Weymouth Allington Villa, Bridport St. Ives, Upper Parkstone, Dorset
1901 1883 1901 1900 1899 1900	Langdon, Miss M. Langford, Rev. Canon, M.A. Leach, J. Comyns, Esq., M.D. Lee, W. H. Markham, Esq., I.S.M. Legge, Miss Jane Le Jeune, H., Esq. Leslie, Rev. E. C., M.A.	Athelhampton, Dorchester Parrock's Lodge, Chard Belle Vue, Higher Hooe, Plymouth The Lindens, Sturminster Newton, Blandford Wyke Regis, Weymouth Allington Villa, Bridport St. Ives, Upper Parkstone, Dorset Came Rectory, Dorchester
1901 1883 1901 1900 1899 1900 1902	Langdon, Miss M. Langford, Rev. Canon, M.A. Leach, J. Comyns, Esq., M.D. Lee, W. H. Markham, Esq., I.S.M. Legge, Miss Jane Le Jeune, H., Esq. Leslie, Rev. E. C., M.A. Lewis, Rev. A., M.A.	Athelhampton, Dorchester Parrock's Lodge, Chard Belle Vue, Higher Hooe, Plymouth The Lindens, Sturminster Newton, Blandford Wyke Regis, Weymouth Allington Villa, Bridport St. Ives, Upper Parkstone, Dorset Came Rectory, Dorchester Littlebredy, Dorchester
1901 1883 1901 1900 1899 1900 1902 1894	Langdon, Miss M. Langford, Rev. Canon, M.A. Leach, J. Comyns, Esq., M.D. Lee, W. H. Markham, Esq., I.S.M. Legge, Miss Jane Le Jeune, H., Esq. Leslie, Rev. E. C., M.A. Lewis, Rev. A., M.A. Linklater, Rev. Robert, D.D.	Athelhampton, Dorchester Parrock's Lodge, Chard Belle Vue, Higher Hooe, Plymouth The Lindens, Sturminster Newton, Blandford Wyke Regis, Weymouth Allington Villa, Bridport St. Ives, Upper Parkstone, Dorset Came Rectory, Dorchester Littlebredy, Dorchester

		XVII.
1902	Littledale, T. A. R., Esq.	Weltendale, Ross, Herefordshire
1905	Llewellin, W., Esq., M.A.	Upton House, Poole
1905	Llewellin, Mrs.	Upton House, Poole
1900	Lock, Mrs. A. H.	53, High West Street, Dorchester
1892	Lock, B. F., Esq.	11, New Square, Lincoln's Inn, London
1893	Lock, Miss Mary C.	53, High West Street, Dorchester
1905	Lush, Mrs. W. Vawdrey	Arnmore, Upper Lansdowne Road, Bournemouth
1901	Lys, F. D., Esq., M.R.C.S.,	
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1838	Macdonald, P. W., Esq., M.D.	Herrison, Dorchester
1902	Mainwaring, LieutCol. F.G.L.	Wabey House, Upwey
1890	Manger, A. T., Esq.	Stock Hill, Gillingham
1894	Mansel-Pleydell, Mrs.	Longthorns, Blandford
1899	Mansel-Pleydell, Rev. J. C. M.,	
	M.A., R.D. (Vice-President)	Sturminster Newton Vicarage, Blandford
1896	March, H. Colley, Esq., M.D.,	
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1904	Marsh, J. L., Esq.	White Cliff Mill Street, Blandford
1897	Martin, Miss Eileen	4, Greenhill, Weymouth
1885	Mate, William, Esq., F.R. Hist.	•
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1901	Maude, W., Esq., B.C.L.	Brackenwood, Bournemouth
1879	Maunsell, Rev. F. W., M.A.	Symondsbury Rectory, Bridport
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1902	Mayo, Miss B.	Friar Waddon, Dorchester
о.м.	Middleton, H. B., Esq.	Bradford Peverell, Dorchester
1900	Middleton, Miss L. M.	Lulworth, Wareham
1890	Milne, Rev. Percy H., M.A.	Evershot Rectory, Dorchester
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1905	Nicholson, Captain Hugh	Nettlecombe, Melplash, R.S.O.
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1906	Okeden, Edmund Parry, Esq.	Moreton
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1905	Page, Thomas, Esq.	Trevissome, Parkstone Road, Poole
1905	Page, Mrs. T.	Trevissome, Parkstone Road, Poole

xviii.

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	M.A., F.R.S. (Vice-President)	Bloxworth Rectory, Wareham
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	F.S.A.	Hinton St. Mary, Blandford
1905	Pitt-Rivers, Mrs. A. L. Fox	Hinton St. Mary, Blandford
1904	Plowman, Rev. L. S.	Ibberton Rectory, Blandford
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1906	Pope, Mrs. Alfred Rolph	Culliford House, Dorchester
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1905	Pope, Miss Hilda	South Court, Dorchester
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1905	Pringle, Mrs. Henry T.	Ferndown
1888	Pye, William, Esq.	Dunmore, Rodwell, Weymouth
1888	Radclyffe, Eustace, Esq.	Hyde, Wareham
1902	Ralls, James, Esq.	Bridport

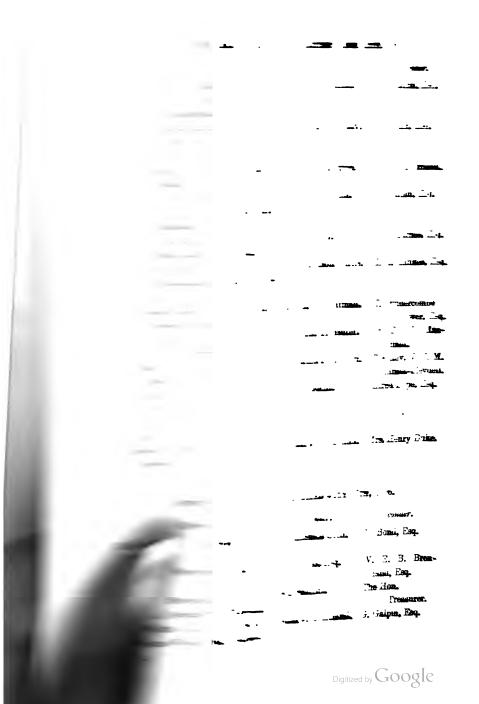
1905	Ramsden, Mrs.	Great Bidlake, Bridestow, N. Devon
1906	Ransford, Colonel	Talavera, Dorchester Road, Weymouth
0. M .	Ravenhill, Rev. Canon, M.A., R.D.	Buckland Newton Vicarage, Dor- chester
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1906	Raymond, Mrs. F.	Garryowen, Dorchester
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1886	Reynolds, Mrs. Arthur	Westland, Bridport
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	(President)	Montevideo, Chickerell, near Wey- mouth
1889	Ridley, Rev. O.M., M.A.	East Hill, Charminster, Dorchester
1905	Ridley, Miss H. L.	East Hill, Charminster, Dorchester
1901	Ridley, Rev. J.	The Rectory, Pulham, Dorchester
1894	Rixon, W. A., Esq.	Turkdean Manor, North Leach
1890	Robinson, Sir Charles, F.S.A.	Newton Manor, Swanage
1886	Rodd, Edward Stanhope, Esq.	Chardstock House, Chard
1889	Russell, Colonel C. J., R.E.	Clavinia, Weymouth
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1905	Sanderson-Wells, T. H., Esq.,	•
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1905	Saunt Miss B. V.	Buxton, Rodwell, Weymouth
1839	Schuster, Rev. W. P., M.A.	The Vicarage, West Lulworth
1904	Seaman, Rev. C. E., M.A.	Stalbridge Rectory, Blandford
1883	Searle, Alan, Esq.	Ashton Lodge, Bassett, Southampton
1905	Shenton, Rev. G. D., B.A.	West Grinstead Rectory
1906	Shephard, Col. C. S., D.S.O.	Shortlake, Osmington, Weymouth
1893	Shepheard, Thomas, Esq.,	
	F.R.M.S.	Kingsley, Bournemouth West
1903	Shepherd, Rev. C. S., F.C.S.	Worth Matravers Vicarage, Wareham
1903	Sheridan, Mrs. A. T. Brinsley	Frampton Court, Dorchester
1884	Sherren, J. A., Esq., F.R. Hist. S.	Helmsley, Weymouth
1897	Simpson, Jas., Esq.	Minterne Grange, Parkstone
1895	Simpson, Miss	12, Greenhill, Weymouth
1899	Smith, Howard Lyon, Esq., L.R.C.P.	Buckland House, Buckland Newton,
		Dorchester
1902	Smith, R. Bosworth, Esq., M.A.	
	(Vice-President)	Bingham's Melcombe, Dorchester
1905	Smith, Rev. E. Heriz, M.A.	Tarrant Hinton Rectory, Blandford
1838	Solly, Rev. H. S., M.A.	Bridport
1901	Sotheby, Rev. W. E. H., M.A.,	
	R.D.	Gillingham Vicarage, Dorset

1900	Stephens, W. L., Esq.	West Bay, Bridport
1905	Stephens, J. Thompson, Esq.	Wanderwell, Bridport
1903	Stilwell, H., Esq.	Steepleton Manor, Dorchester
1900	Storer, Colonel, late R.E.	Keavil, Bournemouth
1900	Stopford, Admiral	Shroton House, Blandford
1883	Stroud, Rev. J., M.A.	Lillesden, Broadstone
0. M .	Stuart-Gray, Hon. M. G., M.A.,	
	F.S.A. Ed., F.G.S. (Vice-	
•	President)	Kinfauns Castle, Perth, N.B.
1895	Sturdy, Leonard, Esq.	Trigon, Wareham
1896	Sturdy, Philip, Esq.	The Wick, Branksome, near Bourne-
		mouth
1902	Sturdy, Miss V.	The Wick, Branksome, near Bourne-
		mouth
1905	Sturdy, E. T., Esq.	Norburton, Burton Bradstock, Bridport
1898	Sturt, W. Neville, Esq.	Baytree Farm, Great Horkesley, Col-
		chester
1902	Sumner, Heywood, Esq.	Cuckoo Hill, South Gorley, Fording-
		bridge, Hants
1893	Suttill, H. S., Esq.	Pymore, Bridport
1905	Suttill, John, Esq.	24, West Street, Bridport
1896	Swift, B. Ryle, Esq., M.A.	Holly Bank, Dorchester
1885	Sydenham, David, Esq.	Bournemouth
1893	Sykes, E. R., Esq., B.A., F.Z.S.	3, Gray's Inn Place, Gray's Inn, London, W.C.
1889	Symes, G. P., Esq., M.A., B.C.L.	Monksdene, Weymouth
1904	Symonds, Arthur G., Esq.	South Street, Dorchester
1904	Symonds, Henry, Esq.	30, Bolton Gardens, London, S.W.
1897	Taylor, J. Herbert, Esq.	Grayrigg, Parkstone
1901	Telfordsmith, Telford, Esq.,	
	M.A., M.D.	Romansleigh, Wimborne
0. M .	Thompson, Rev. G., M.A.	Highbury, Bodorgan Road, Bourne- mouth
1906	Thomson, Chas. Bertram, Esq.,	
	F.R.C.S.	Romansleigh, Wimborne
1893	Troyte-Bullock, Mrs.	Silton Lodge, Zeals, Bath
1905	Truell, Mrs.	Onslow, Wimborne
0. M .	Udal, J. S., Esq., F.S.A.	Antigua, Leeward Islands, West Indies
1897	Usher, Rev. R., M.A., F.L.S.	West Knoyle Rectory, Bath
1890	Usherwood, Rev. Canon, M.A.	Coombe Keynes, Wareham
1903	Usherwood, Miss E. L.	Coombe Keynes, Wareham
1905	Van Raalte, Chas., Esq., F.S.A.	Brownsea Island, Dorset
1887	Walker, Rev. S. A., M.A.	Spetisbury Rectory, Blandford
1905	Ward, Samuel, Esq.	5, Greenhill, Weymouth
0. M .	Warre, Rev. Canon F., M.A.	Bemerton, Salisbury

1904	Warry, Mrs. King	39, Filey Avenue, Clapton Common, London, N.	
1904	Warry, Wm., Esq.	Westrow, Holwell, Sherborne	
1905	Watkins, Wm., Esq.	62, London Wall, E.C.	
0. M .	Watts, Rev. Canon, M.A.	Bemerton, Salisbury	
1905	Watts, Miss	Bemerton, Salisbury	
1906	Watts, Col. W., C.B.	The Priory, Branksome, Wood Road, Bournemouth	
1893	Weaver, Rev. F. W., M.A., F.S.A.	Milton Vicarage, Evercreech, Somerset	
1905	Webb, H. N., Esq.	Bibury Cottage, Osborn Road, Brank- some Park, Bournemouth	
1904	Westcott, Rev. Canon F. B., M.A.	The School House, Sherborne	
1895	Whitby, Joseph, Esq.	Preston, Yeovil	
1905	Whitby, Miss Marjorie	Preston, Yeovil	
1904	Wildman, W. B., Esq., M.A.	The Abbey House, Sherborne	
1900	Wilkinson, Rev. J. H., M.A.	Melcombe Bingham Rectory, Dor- chester	
1892	Williams, E. W., Esq., B.A.	Herringston, Dorchester	
1903	Williams, Captain Berkeley C. W.	Herringston, Dorchester	
1897	Williams, Miss F. L.	Westleaze, Dorchester	
1884	Williams, Robert, Esq., M.P.	Bridehead, Dorchester	
1884	Williams, Mrs. Robert	Bridehead, Dorchester	
1906	Williams, Miss Meta	South Walk, Dorchester	
1905	Wills, A. W., Esq., M.P.	3, Hyde Park Gate, London, S.W.	
1906	Winwood, T. H. R., Esq., M.A.	Moreton House, Dorchester	
1905	Wood, Lady	The Mount, Parkstone	
1898	Woodhouse, Miss	Chilmore, Ansty, Dorchester	
1903	Woodhouse, Miss Ellen E.	Chilmore, Ansty, Dorchester	
1906	Woodhouse, Frank D., Esq.	Old Ford House, Blandford St. Mary	
1906	Woodhouse, Mrs. Frank D.	Old Ford House, Blandford St. Mary	
1898	Workman, J. Reece, Esq., C.E.	Inglenook, Winchester Road, Bassett, Southampton	
1904	Wright, W. Southey, Esq., B.A., M.R.C.S., L.R.C.P.	Wool, Wareham	
1902	Wright, Rev. Herbert L., B.A.	Church Knowle Rectory, Corfe Castle	
1904	Yates, Robert, Esq.	Milton Abbas, Blandford	
1896	Yeatman, Mrs.	114, Denbigh Street, London, S.W.	
1901	Yeatman, Miss E. F.	King's Stagg, Sturminster Newton	
1893	Young, E. W., Esq.	Dorchester	

The above list includes the New Members elected up to and including the last summer meeting of the season at Longleat, August 27th.

(Any omissions or errors should be notified to the Hon. Secretary.)



PROPOSED DEC. 12TH, 1905; ELECTED FEB. 22ND, 1906.

Member.	Proposer.	Seconder.
T. W. W. Bovey, Esq., L.R.C.P., M.R.C.S., of Abbotsbury Vicar- age, Dorchester.		Dr. W. Hawkins.
J. C. Higginbotham, Esq. ("Orme Agnus"), of Northport House, Wareham.	The Hon, Secretary.	Dr. T. Fielding.
A. W. Oke, Esq., of 32, Denmark Villas, Hove, Sussex.	W. Parkinson Curtis, Esq.	Allan Searle, Esq.
Miss Adelaide S. Paget, of Park Homer, Wimborne.	Mrs. Truell.	N. Bond, Esq.
Col. Charles Ransford, of Talavera, Dorchester Road, Weymouth.	LtCol. F. G. L. Mainwaring.	Dr. W. Hawkins.
Miss E. A. Samson, of Elwell Lea, Upwey, Dorset.	"	"
John Suttill, Esq., of 24, West	J. T. Stephens, Esq.	H. S. Suttill, Esq.

PROPOSED FEB. 22ND, 1906; ELECTED MAY 16TH, 1906.

Street, Bridport,

Mømber.	Proposer.	Seconder.
Miss Baker, of Ranston, Blandford.	Lord Eustace Cecil.	The President.
R. Barrow, Esq., of Sorrento House, Sandecotes, Parkstone.	L. G. Pike, Esq.	G. C. Filliter, Esq.
The Rev. W. Butt, M.A., J.P., of Kempsford Vicarage, Fairford, Glo's.	Miss G. Lister.	A. Lister, Esq.
Miss Groves, of Thickthorne, Broadway, Dorset.	Dr. W. Hawkins.	LtCol. F. G. L. Mainwaring.
Mrs. C. B. Humphreys, of Eagle House, Blandford.	Miss J. J. Woodhouse.	Miss E. E. Wood- house.
Mrs. Jameson, of Kenmare, Prince of Wales' Road, Dorchester.	The Rev. W. Miles Barnes.	Miss L. R. Clapcott.
T. H. R. Winwood, Esq., M.A., of Moreton House. Dorchester.	Lord Eustace Cecil.	The President.
F. D. Woodhouse, Esq., of Old	R. Bosworth Smith,	The Rev. J. H.
Ford House, Blandford St. Mary.	Esq.	Wilkinson.
Mrs. F. D. Woodhouse, of Old Ford	"	"
House,		

PROPOSED MAY 16TH, 1906; ELECTED JUNE 12TH, 1906.

Member.	Proposer.	Seconder.
F. T. Atkins, Esq., M.R.C.S., L.R.C.P., of Cathay, Alumhurst Road, Bournemouth.	Dr. G. J. Crallan.	G. Galpin, Esq.
Nigel de M. Bond, Esq., B.A., of 156, Ashley Gardens, London, S.W.	The Hon. Secretary.	N. Bond, Esq.
Miss Cox, of 4, Chesterfield Place, Weymouth.	Dr. G. G. Morrice.	Dr. J. Moorhead.
J. R. L. Dixon, Esq., M.R.C.S., L.R.C.P., of 2, Wootton Gardens, Bournemouth.	Dr. G. J. Crallan.	G. Galpin, Esq.
F. W. Dodd, Esq., M.I.C.E., of 1, Richmond Villas, Weymouth.	W. Pye, Esq.	F. J. Barnes, Esq.
H. Fisher, Esq., of The Rosery, Florence Road, Boscombe, Bourne- mouth.	•	E. R. Bankes, Esq.
Miss Maude Hall, of King's Stagg, Sturminster Newton, Dorset.	Miss E. F. Yeatman.	H. Syndercombe Bower, Esq.
Guy Heaton, Esq., M.A., of S. David's, Bournemouth West.	The Hon. Treasurer.	Dr. P. W. Mac- Donald.
Edmund Parry Okeden, Esq., of Moreton, Dorset.	Sir Richard G. Glyn.	The Rev. J. C. M. Mansel-Pleydell.
Alfred Rolph Pope, Esq., J. P., of Culliford House, Dorchester.	The President.	Alfred Pope, Esq.
Mrs. Alfred Pope, of Culliford House.	"	"
Miss Meta Williams, of South Walk, Dorchester.	Captain J. E. Acland.	Mrs. Henry Duke.

PROPOSED JUNE 12TH, 1906; ELECTED JULY 17TH, 1906.

Member.	Proposer.	Seconder.
Mrs. Bankes, of Kingston Lacy, Wimborne.	Lord Eustace Cecil.	N. Bond, Esq.
A. W. B. Brennand, Esq., of Blandford.	C. H. Curtis, Esq.	W. E. B. Bren- nand, Esq.
Col. C. S. Shephard, D.S.O., of Shortlake, Osmington, Weymouth.		The Hon. Treasurer.
Col. W. Watts, C.B., of The Priory, Branksome Wood Road, Bourne- mouth.	Captain J. E. Acland.	G. Galpin, Esq.

Proposed July 17th, 1906; Elected Aug. 27th, 1906.

Member.	Proposer.	Seconder.
The Rev. P. A. Butler, of East	Capt. J. W. T.	G. D. Bond, Esq.
Stoke Rectory, Wareham.	Fyler.	
Mrs. W. J. Fletcher, of The	W. J. Fletcher,	A. Pope, Esq.
Chantry, Wimborne.	Esq.	
Mrs. Girdlestone, of The Corner	The Rev. S. E. V.	Dr. F. T. Atkins.
House, Alumhurst Road, West	Filleul.	
Bournemouth.		
Joseph Gundry, Esq., of Wales	W. Albert Bankes,	E. W. Williams,
House, Prince of Wales' Road,	Esq.	Esq.
Dorchester.		
Mrs. F. Raymond, of Garryowen,	F. Raymond, Esq.	C. S. Prideanx,
Dorchester.		Esq.
C. B. Thomson, Esq., F.R.C.S., of	Dr. T. Telford-	Dr. H. T. Pringle.
Romansleigh, Wimborne.	smith.	



PUBLICATIONS.

Proceedings of the Dorset Natural History and Antiquarian Field Club. Vols. I.—XXVII. Price 10s. 6d. each volume, post free.

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SOCIETIES IN CORRESPONDENCE WITH THE FIELD CLUB.

British Museum.
British Museum of Natural History.
British Association.
Bristol Naturalists' Society.
Devon Association for the Advancement of Science.
Hampshire Field Club.
Manchester Literary and Philosophic Society.
Royal Society of Antiquaries, Ireland.
Society of Antiquaries, London.
Somerset Archæological Society.
Wiltshire Archæological and Natural History Society.

The Froceedings

OF THE

Porset Natural History & Antiquarian Field Club

DURING THE SEASON 1905-1906.

WINTER SESSION, 1905-1906.

THE FIRST MEETING of the Club for the Winter Session was held in the Reading Room of the County Museum on Tuesday, December 12th, at 12.45. The President (Mr. Nelson M. Richardson) took the chair, and forty members were present.

THE MEMBERSHIP.—Thirteen persons were elected Members and eight proposed for membership.

EXHIBITS.

BY THE PRESIDENT:

- (i) A cannon ball found this year in a field at Radipole, near Weymouth.
- (ii.) An antique Japanese inkstone by the celebrated maker, Tan-kei, and the accompanying water pot in bronze.
- (iii.) Pomegranates grown on a tree in the garden at Montevideo. The tree is on a wall, but is never protected in any way.

BY THE REV. J. C. M. MANSEL-PLEYDELL:

Two small cases of coins which were among the collections of his father (the late Mr. J. C. Mansel-Pleydell, the first President of the Club). Most of the coins were found in and around the Whatcombe property. The 24 different Roman coins exhibited were all dug up in Dorset. The oldest was a good specimen of Agrippina, mother of Nero, who died 33 A.D. Then came coins of Vespasian, Antoninus Pius, Marcus Aurelius, Severus, and two good silver coins of Hadrian. There were more coins of all the Emperors during the Roman occupation, the series ceasing suddenly with Constantine and Constantius. One tiny coin of Carausius, found in Bockerley Dyke, near Rushmore, suggested the conjecture that such miniature coins were made especially for interments. He also showed a fine Rose noble of Edward IV., a half-guinea of Henry VIII., found during the repair of Clenstone farmhouse in 1847, several silver Portuguese coins brought from the Peninsular War, some interesting old seals, and a pedometer, still in working order.

By Mr. CHARLES PRIDEAUX:

A Roman pot found at the bottom of the Grove, another found under the front door of the new Masonic Hall, and a fragile slate incised with pretty patterns. These he presented to the County Museum, and the President, on behalf of the Council, thanked him for his valuable gift.

BY MR. W. L. STEPHENS:

Some fine photographs of the solar eclipse on August 30th taken by him at West Bay.

BY MR. T. S. ALDIS:

Some curious coprolites, from the cliff at Burton Bradstock, containing molluscan and other remains.

BY CANON USHERWOOD:

Photographs of various objects—iron and stone implements, carved stones, and symbols of Phallic worship—recently found in Mashonaland. A Barotsi dagger; and wild almonds from Livingstone, where they were used for paving purposes.

BY MR. BECKFORD:

A bottle containing a small specimen of the torpedo ray fish. Mr. Beckford stated that only two other specimens are recorded as having been found on the Dorset coast, one at Poole, the other at Weymouth.

BY COLONEL MAINWARING:

Large water snail shells found by him when shooting in Meerut in the marshy ground which the Ganges overflowed.

BY MR. F. J. BARNES:

Some curiously-marked pebbles found on the Chesil Beach.

REPORT OF THE DELEGATE TO THE BRITISH ASSOCIATION.— Mr. Ernest Sykes' report was then read:—

The first meeting of the delegates was held in Burlington House on October 30th last. Dr. Smith Woodward, F.B.S., took the chair, and delivered an address dealing with various aspects of the work of local Scientific Societies.

A general discussion took place. Special points dealt with included the "excursions" of the various Societies, and much interest was displayed in the various ways in which Societies prevent these from degenerating into mere picnics. One delegate mentioned that in the Society which he represented, a rule had been made that under no circumstances should hospitality be accepted. Mr. Whitaker said that small excursions in which only a few members belonging to one section of the Society joined—e.g., botanical, geological, &c.—had in one Society proved very beneficial and of great interest. The idea was that only those persons who desired specially to know of them were notified, and they were

arranged only for special purposes or places. Another delegate said that a junior section had been very well attended, children of schools, &c., being invited and instructed. The general feeling of the meeting appeared to be that local considerations must influence the decision of each Society, but that every effort was desirable in order that the scientific tone of the excursions should be maintained.

Dr. Martin read a paper on the Law of Treasure Trove, in which he suggested that efforts should be made to more widely extend the public knowledge of the law and of the arrangements made by the Treasury for the remuneration of finders. Further he said that an extension of the law to cover all objects of antiquity was desirable.

Mr. Collis and Mr. Hardy read brief papers on the law of copyright as affecting Scientific societies, and short discussions on these papers took place.

In the afternoon the delegates visited the Museum of the College of Surgeons, and in the evening they were the guests, at dinner, of the Royal Societies' Club. It may be remarked that Dr. Mill, in proposing the toast of the British Association, referred to the great assistance he had received in rainfall questions from the local Societies, and that he specially named three, of which the Dorset Field Club was one.

The main feature of the meeting on October 31st was the reading of a paper by Professor Boulger on the preservation of our native plants. He stated that there was no authentic record of any plant having as yet become absolutely extinct in the British Isles, but that several were known to have disappeared from almost all the recorded localities. He also suggested that steps for their preservation should be taken, both by moral persuasion and by legislation, on the lines of the Wild Birds' Protection Act. Considerable discussion followed, and eventually the matter was left to the Committee to deal with and to consider whether circulars might not be printed and distributed calling attention to the importance of preserving all our native plants.

In conclusion, I would call attention to one feature of the Corresponding Societies Committee's report, by which a new class of Corresponding Societies, to be called "Associated Societies," has been created, to consist of those Societies which, numbering fifty members, have no regular published proceedings.

Information is asked for by the Committee as to the names and whereabouts of such Societies, as they may prove very difficult to trace.

PAPERS.

The following papers were read:-

(i.) "The Durngate Street Mosaic Pavement," by Dr. Colley March. (Printed.)

Mr. ALFRED POPE said that in the Olga Road pavement they came to the conclusion that the black tesseræ were of Kimmeridge shale. He enquired whether the black tesseræ in the Durngate Street pavement, although somewhat different, might

not be of the same substance. Dr. MARCH answered that they contained crystals of calcite, and had been pronounced marble by an expert in London. An interesting discussion followed on the significance of the serpent as a symbol in pagan and Christian art. Captain ACLAND observed that the serpent, so frequent in the Pompeiian pavements, was undoubtedly intended as an attribute to Æsculapius, and used as a health charm.

- (ii.) "Surface Waves Produced by Sledges," by Dr. Vaughan Cornish, F.R.G.S.
- (iii.) "The Rolls of the Court Baron of the Manor of Winterborne Waste, alias Monkton," by the Rev. W. Miles Barnes (printed). On account of the lateness of the hour this last paper was taken as read.

The meeting then closed.



WINTER SESSION.

THE SECOND MEETING of the Winter Session was held at the Dorset County Museum on Thursday, February 22nd, at 12.45. The President was in the chair.

THE MEMBERSHIP.—Eight candidates nominated at the last meeting were elected, and nine nominated.

Notice of Proposals.—Captain Elwes gave notice of his intention to propose at the next meeting that the Club membership be limited to 400.

The Hon. Secretary gave notice of his intention to propose at the next meeting a scheme for affiliating kindred Societies in the County, and Libraries in England and elsewhere, to the Dorset Field Club.

EXHIBITS.

BY THE REV. C. W. H. DICKER:

Water-colour drawings of a dabchick and a kingfisher, each choked to death by trying to swallow a large specimen of the bullhead (Cottus gobio).

BY DR. COLLEY MARCH.

A monastic sepulchral cross, unearthed with many others, near Christ Church Hospital, London.

Dr. March said these little leaden crosses distinguished the bodies of the Grey Friars, who perished during the Black Death, 1348-9. Colonel Mainwaring enquired if any sepulchral crosses had ever been found in Dorset, dug up with skeletons and other relics. The Hon. Sec. answered that they had heard from time to time, not actually of crosses, but of little "Mary tokens" dug up in country churchyards, with pictures of the Blessed Virgin upon them, and supposed to have some beneficial effect.

BY MR. F. J. BARNES.

A curious fossil, the base of a large dorsal fin-spine, probably of the *Ischyodus townsendi*, found in the whitbed at Portland (Dr. Smith Woodward contributes a paper thereon to this volume).

By Mr. A. C. Ponton.

Some examples of Chromatic Radiography.



PAPERS.

The following papers were then read:

(i.) "Parallel Banding in Old Mortar," by Dr. G. Abbott, F.G.S., of Tunbridge Wells.

The President said he was sorry that Dr. Abbott could not be with them, and he asked the Hon. Secretary to read his paper for him. The paper was illustrated with a photograph of the weathered stonework of the Military Arms, Messrs. Devenish and Co.'s inn at Weymouth, near the Nothe, for Dr. Abbott stated that the weathering of mortar, showing the common changes which go on in calcareous matter all over the country, can nowhere be seen to better advantage than in Weymouth. Lime, said Dr. Abbott, possesses a trick or selective habit as pronounced as that of crystalline substances of arranging itself in parallel bands, and the familiar ridges and furrows in old mortar are apparently formed by the segregation of the lime, which tends to leave the furrows and arrange itself in the ridges. The fact that this habit of lime appears also to be the cause of various other phenomena, supports the present theory. PRESIDENT said he was the more sorry that Dr. Abbott could not be with them that day, because he could not agree with him as to the causes producing the markings. It seemed to him that the appearances might be capable of a more simple explanation, and he read a note on the subject contending that they were caused by the growing of moss. In support of his contention, the President exhibited specimens of mortar from a wall near Abbotsbury, showing the development of the characteristic ridges and furrows by the growth of moss in shrinkage cracks on the surface, gradually disintegrating and widening the cracks into furrows (as opposed to the theory of segregation). To shew the identity of the Abbotsbury and Military Arms' specimens, he also exhibited some pieces of mortar from the latter place, which had been photographed by Dr. Abbott.

(ii.) "Ancient Stones at Stinsford and Batcombe," by Mr. Alfred Pope. This paper comprised two chapters from Mr.

Pope's book, The Old Stone Crosses of Dorset, since published at the Chiswick Press.

(iii.) "The meaning of 'Durnovaria' and 'Durotriges.'" By Captain Acland:— '

I heard recently that the derivation of the words Durnovaria and Durotriges had nothing whatever to do with "water," and I am grateful for the opportunity of asking the members of the Field Club to share this unlooked for pronouncement with me, to listen to the evidence, and perhaps to restore me to the ancient faith. As there may be some present to-day who have not the opportunity of reference to the many different books on this subject, I may say briefly that without exception, so far as I know, every writer has traced these words in their derivation to a connection with water. Whether we turn to the writings of Stukeley, Warne, Hutchins, the late Rev. W. Barnes, or Henry Moule, we find them all of one opinion, viz., that the first syllable both of Durnovaria and Durotriges is derived from the Celtic word Dwr, water, or Dwrn, the diminutive. (See Warne "Ancient Dorset." p. 209; Barnes' "Ancient Britain," in Arch. Journal, Vol. XXII.; and H. Moule "Old Dorset," p. 63.) Without making any further comments I will now read the statement which is meant to upset all these eminent authorities. It is by the Rev. Edmund McClure, Secretary to the S.P.C.K. He says in a letter, or series of letters, to me, "The association of Dwr and Water belongs to a pre-scientific age, and all the Dwr theories from Camden down to comparatively lately are pure nonsense; no modern philologist would give it a moment's consideration, for this reason. The word for water among the Celtic tribes in the time of the Romans was Dubron, plural Dubra, and in the locative plural Dubris, the ancient name of Dover. This word is represented later as Dobor or Durbr, and only in modern Welsh as Dwr. It is clear that this modern form, Dwr, could not appear in place-names which belong to a time when Dubron was the word for water." "Now as to the first element in Durno-Varia (the form in the Antonine Itinerary, 486, 15), the only existing Celtic word with which it can be equated, is represented in the modern Irish Dorn, the Welsh Dwrn, the Breton Dorn, and in all these dialects it means 'fist,' and verbs formed from it, 'to fight with the fists.'" Varia is not uncommon in Celtic place-names on the Continent, and corresponds with the Welsh "Gwaræ," which means "games," "sports." "Durno-Varia" would thus mean "fist-sport" or "wrestling matches," and this would lead to the inference that there was an amphitheatre there when there was nothing but a rough camp for the Roman troops, i.e., before there was a walled town; the important thing in the eyes of the native would thus be the "fist-sports," and the amphitheatre was the striking thing in the imagination of the natives." As to Duro-triges. Duro, or Duron, appears in hosts of Celtic place-names both here and on the Continent, and is well known to mean "stronghold" or "fortress." "Duro-triges" would thus mean "fortdwellers," people who lived in strongholds, like Maiden Castle, and not in the open." On this new theory I wish to make only two simple remarks, not being competent to discuss the intricacies of Celtic derivations. According to my informant, Durnovaria is a true Celtic name, not a Roman rendering of a previous Celtic name; and yet the Celtic inhabitants must have originated the name after the Romans occupied the country, after they were sufficiently sure of their hold to build an amphitheatre and indulge in "fist-sports." There is, therefore, this important point to be kept in mind by those who investigate the meaning of "Durnovaria." When first was the name given? If there is any trace of the name prior to the permanent settlement of the Romans, the native race cannot have made use of a word derived from the games witnessed in the amphitheatre. When the late Mr. Barnes read a paper to the Archeological Institute at Dor. chester in 1865 on "Ancient Dorset" he used these words: "The Romans in their itineraries and other writings on Britain took the names of places and men from British lips and then moulded them into a Latin shape so as to fit them to their language and utterance." He then shows how Durnovaria was "moulded" from Durn, or Durin Wyr, i.e., the Durin people or district Durn, meaning water, or little water. For the present, at any rate, I shall be content to take my stand under the banner of our Dorset Poet.

Captain Elwes, in the course of a short discussion on the subject, observed that the Celtic races had no notion of games until they learnt them from the Romans, so much so that their name for games was "campi," from "Campus Martius." The President said he gathered that the club had not been given sufficient reason to change their ancient belief as to the meaning of the words "Durnovaria" and "Durotriges."

- (iv.) "The Life History of a Scarce Moth, Ophiodes lunaris, by Dr. G. J. Crallan. (Printed.)
- (v.) "British Arachnida," by the Rev. O. Pickard-Cambridge. (Printed.)

The meeting then closed.

THE ANNUAL GENERAL MEETING.

THE ANNUAL GENERAL MEETING of the Club was held on Wednesday, May 16th, in the Reading Room of the Museum. The President took the chair at 12.45.

THE MEMBERSHIP.—Nine candidates proposed at the last meeting were elected Members, and thirteen candidates for membership were proposed for election at the next meeting.

PRESIDENTIAL ADDRESS.—The PRESIDENT then read his Address, on the conclusion of which Mr. Alfred Pope proposed a hearty vote of thanks, saying that there was hardly any point relating to science, archæology, and the other subjects of which the Club took cognisance to which the President had not made reference. Dr. Macdonald seconded the vote of thanks, which was carried with acclamation.

THE LIMITATION OF THE CLUB MEMBERSHIP.—In accordance with the notice of motion given by him, Captain Elwes rose to propose that the Membership of the Club be limited to 400. Colonel Mainwaring seconded the proposition. The Hon. Sec. read a long letter which he had received from the Hon. Morton G. Stuart-Gray, a former honorary secretary of the Club, expressing warm approval of the proposal. An animated discussion took place upon the proposal, and it was eventually resolved without dissent:—"That the members of the club be limited to 400, power being reserved to the Council to select from the list of candidates as additional members over and above the limit, persons whose membership they may consider to be advantageous to the interests of the club."

THE AFFILIATION OF KINDRED SOCIETIES TO THE CLUB.—
The Hon. Secretary proposed a scheme for affiliating to the Club kindred societies in the county, and also libraries in England and elsewhere. He submitted some draft rules (now printed among the Rules of the Club). Dr. Moorhead seconded the motion for the adoption of the scheme, which he described as admirable. The society was one of light and leading, and that

light it was desirable to disseminate as widely as possible. And reciprocity was of importance. The motion was carried unanimously.

PRESENTATION OF THE MANSEL-PLEYDELL MEDAL.—At the PRESIDENT'S request, and in the absence of her father, the Rev. J. C. Mansel-Pleydell, Mrs. Sherbrooke (Miss Cicely Mansel-Pleydell) presented the Mansel-Pleydell silver medal and prize of books or instruments to the value of £5, to the winner for the first year, Mr. Parkinson Curtis, of Aysgarth, Longfleet, Poole, for an essay on the Ringed Plover (Ægialitis hiaticola), illustrated by photographs and coloured drawings. The Cecil Medal and a similar prize were awarded to Mr. Ernest W. Short, of 96, Caledonian-road, Leeds (a native of Dorset), for an essay on "Electricity as applicable to household purposes in the future, economically and scientifically considered." The two essays and medals had been laid on the table for inspection. (Mr. Parkinson Curtis' paper is printed in this volume.)

THE HON. SECRETARY'S REPORT.—The HON. SECRETARY then read his report as follows:—

The membership of the Club is now (including the nine new members elected to-day) 390, which is an increase of more than 30 on the previous year. There are also 10 honorary members of the Club. The one-day summer meetings this year were very well attended, especially that at Poole and Brownsea Island; but the two-day meeting at Bradford-on-Avon and Bath attracted a very small gathering only. The question should be raised as to whether it is desirable to have a two-day meeting out of the county this year. My statement of accounts in connection with the summer meetings shows a balance in hand of £6 4s., as against £2 14s. 11d. last year. I am indebted to Miss Violet Pope for searching through the first 25 volumes of the "Proceedings," in order that to each member's name might be prefixed the year of his election; and also to Mr. Pouncy, the assistant secretary, for help in many directions.

THE CLUB'S FINANCE.—The Hon. TREASURER, in a brief financial statement, congratulated the Club on being in a sound condition in point of funds. They still had £250 Consols, a balance of £76 2s. 8d. at the bank, and £38 outstanding members' subscriptions, quite £30 of which he hoped to receive.

THE PROCEEDINGS.—In the absence of the retiring Hon. Editor (the Rev. W. Miles Barnes) the Hon. Secretary made a short statement as to the probable contents of the next volume of "Proceedings," enumerating the papers which it was proposed to publish. The Publication Committee had decided to print by degrees the Chartularies of the Dorset monasteries; and that of Cerne Abbey, if it did not appear in Vol. XXVII., would be printed in the succeeding volume. The Brasses of Dorset, and also the Dorset Chantries, were to be proceeded with, and completed in course of time.

ELECTION OF OFFICERS.—The President, Hon. Secretary, and Hon. Treasurer, were re-elected, and the Hon. Secretary renominated Mr. H. Pouncy as Assistant Secretary.

The PRESIDENT said he regretted much that the Rev. W. Miles Barnes had resigned the office of Hon. Editor, in which he had done valuable service to the Club. He was glad that Mr. Pentin had kindly consented to take the office. It was no light task to edit that large volume, in addition to the labours of the secretariat. Mr. F. J. Barnes seconded Mr. Pentin's appointment as Hon. Editor, and it was carried with applause.

The following resolution was proposed, and carried unanimously:—"That the sincere thanks of the Club be given to the Rev. W. Miles Barnes for his excellent work as Hon. Editor during the past five years."

The Vice-Presidents were re-elected in a body, and Mr. Miles Barnes' name was added to the list.

Mr. E. R. SYKES, B.A., F.Z.S., was appointed delegate of the Club to attend the meeting of the British Association at York.

THE SUMMER MEETINGS.—The next business was the choice of the places of field meetings to be held during the ensuing summer. Many suggestions of localities had been received, and these were put to the vote, with the result that (1) Bindon Abbey and Lulworth Castle, (2) Badbury Rings and Kingston Lacy, (3) Frome and Longleat, were selected for the outdoor meetings.

XXXVIII. THE ANNUAL GENERAL MEETING.

The President announced that Mr. W. H. Hudleston, of West Holme, had invited the members of the Club to join in a steamboat trip from Swanage to Weymouth on Tuesday, July 3rd, for the purpose of studying the geology of the coast. It was decided to accept Mr. Hudleston's generous invitation and to adopt it as one of the four summer excursions. (Owing to Mr. Hudleston's ill-health this meeting was unable to be held.)

The meeting then closed.

FIRST SUMMER MEETING.

WOOL, BINDON ABBEY, AND LULWORTH CASTLE.

THE FIRST SUMMER MEETING was held on June 12th. The party was unusually large, numbering about 140.

WOOL MANOR HOUSE AND BARN.

Wool Station was the rendezvous, and thence the party set out for Wool Manor House. On the way they passed over the fine Elizabethan bridge, with its five arches. Arriving at the house

The President said he ought first to congratulate the Club on being favoured with so fine a day. He had hoped very much that Mr. Thomas Hardy, the distinguished novelist, would have been able to be present to tell them something about that house, concerning which he had written in Tess of the D'Urbervilles; but unfortunately he was in London. He had received from him a letter, which, as it contained a few words about the house, he would read. It was as follows:—

The Athenseum, Pall Mall, S.W., June 5th, 1906. Dear Mr. Richardson,—It would be a pleasure to me to accept your kind invitation to join the Field Clubin its visit to Wool, as also to my wife, if we were able to be in Dorset on the occasion. But we are up here till the 16th or 17th July. The Manor House is often spoken of as the chief seat of the Turbervilles, but it was, as you know, the seat of the younger branch of the family, the house and estates of the head of the line having been at Bere Regis. I am sorry that the portraits, built into the wall, which were comparatively clear when I wrote about them, have been rubbed or washed till they are almost invisible.—Yours truly, T. Hardy.

The Hon. Sec. observed that they had the pleasure of having with them that day Mr. Weaver, the Hon. Secretary of the Somerset Archæological Society, who questioned the Jacobean date assigned to the house by Mr. Moule.

The Rev. F. W. Weaver said he thought it was far more likely that the house was temp. Henry VII. than Jacobean.

The members had noted the date carved over the porch—1635 or 1655; the third figure is not easy of identification.

The Rev. W. MILES BARNES observed that this seemed to be the date, not of the building of the house, but of a restoration; for there was earlier work in the building. The windows might be temp. Henry VIII. Some were new, made to match the old.

The party then leaving the house, went round to see the barn. Attention was especially attracted by the herring-bone stone work in the north wall and the ancient little cinquefoil window looking on the road.

The Rev. W. MILES BARNES said that as to the building being a chapel, as it had been thought to be, the fact that the roof was still standing upon it was pretty clear proof that it was not originally a chapel. The roof was a 15th century roof of very rough construction. It had never been moved, and there was little doubt that the building was the barn. Then again the building did not orientate. Bindon Abbey, after the Dissolution of the Monasteries, no doubt became a quarry for the whole neighbourhood; and some of the stones were very likely brought there. He thought for example that the 13th century window must have been so brought. As to the herring-bone work, it would be hard to say that it was Saxon, although it might have been a bit of Saxon work introduced into the building bodily. But the surroundings of it were not Saxon.

BINDON ABBEY.

On arrival at the ruins of the Abbey (see illustration) the following paper, prepared from records in the Lulworth Castle Estate Office, was read:—

The abbey was of the Cistercian order, founded in 1172 by Roger, or Robert, de Newburgh and Matilda his wife. William de Glastonia first built it, or began to build it, at Little Bindon on the east side of West Lulworth Cove, where interesting remains still exist. Roger de Newburgh removed it to this place. He and his family were great benefactors to it. The patronage of it belonged to them till, as it appears by charter of Henry III., 18th August, 1271, Henry de Newburgh, formerly patron by his charter, gave licence to the abbot and monks to choose whom they pleased to be their patron, and they had elected himself and Queen Eleanor and their heirs to be their patrons. They accepted the election and received the abbey into their protection. Maud Arundell, wife of William



THE RUINS OF BINDON ABBEY.

de Newburgh, Countess of Sarum, was so great a benefactress to the abbey that she was reckoned the chief foundress. It was dedicated to the Blessed Virgin Mary. King John confirmed all liberties, wrecks, &c., and made various grants of lands, &c., including houses, streets, &c., in Dorchester. Eleanor, Queen of Henry III., granted 'for the health of her soul and of the late King Henry her husband' to the Church of St. Mary at Bindon, in pure alms, all her lands and tenements Vill: Welle. Co. Dorset. Robert de Newburgh, by charter, for the health of his soul and those of his ancestors and successors, granted to it in free, pure, and perpetual alms, all his manor in Woolaveston, with all appurtenances, &c. Edward I. by his charter sets forth that his mother Queen Eleanor had given to this convent a carucate of land at Welle in the hundred of Winfrith. He remits at his mether's instance certain customs due to him from that laud worth 18d. a year, and in the 9th year of his reign he confirmed the grant of various other lands to the abbey. There are also records of gifts to the abbey of lands, &c.. in nearly all the neighbouring villages. Part of the great gate, a few paces from the west end of the church, was standing about 1750. The abbey was demolished soon after the Dissolution. Coker says that out of the ruins of the Monastery, Thomas, first Viscount Bindon, raised a fair house. It is said to have been burnt down in the time of the Civil Wars about 1644.

The abbey church appears to have been a spacious fabric. Five large semicircular arches supported by the six massive round pillars sunk deep in the earth, and four windows above the arches, remained when Mr. Buck drew and engraved it in 1733. The north wall of the body, 70 feet in length and 42 feet high, and part of the wall of the north aisle, 21 feet high and above a yard thick, remained in 1770; all the rest was completely ruined. The north and south audes were equal, 115 feet long by 14 feet broad. The body, including the choir, was 170 feet long and 30 broad. The eastern part of it seems to have extended 24 paces beyond the present ruins. Perhaps here was a chapel dedicated to the Blessed Virgin, as was usual in most conventual churches. The tower was 58 by 38 feet square. There were formerly six pillars on each side of the body. Some on the south were blown down in the great storm of 1703. The precincts, including the ruins of the church and site of the abbey, take up 10 acres. The cemetery seems to have been on the north side of the church, where bones have been dug up. At the southeast of the church, just below the footstep of the side altar, a slab was discovered containing the figure of an abbot surrounded by the following inscription in Lombardic capitals :--

"ABBAS RIGARDYS DE MANERS HIG TYMYLATYR AD PENAS TARDYS DEYS HYNG SALVANS TYEATYR."

In this church the Newburghs and Poynts of Sutton had their sepulture, and probably other great families. John Newburgh, senr., by his will dated March 29th, 1484, ordered his body to be buried in a marble tomb, at his father's feet in his chantry of the Holy Trinity Chapel built by him in this church. At the Dissolution of the Monasteries, the Abbey was valued at £147 7s. 9\dagged. by Dugdale

and £229 2s. 11d. by Speed. It was suppressed in 1536 pursuant to the Act of Parliament made for suppressing the lesser abbeys, which gave their estates to the King. On November 16th, 1537, the King by patent restored this Monastery with a few others, and constituted John Norman as abbot, reinstated the former monks, and restored their abbey church and lands. By this grant it was held of the King in perpetual alms, which seems to have been a precarious tenure, for at the general Dissolution it was surrendered with the lands, charters, &c., belonging to it to Sir John Tregonwell, one of the Masters of the Chancery. The site was then granted by Henry VIII. to Sir Thomas Poynings and was purchased by Mr. Humphrey Weld in 1641 from James, Earl of Suffolk. The present residence at Bindon was erected towards the end of the 18th century by Mr. Thomas Weld, who planted the trees and re-formed, or constructed, the mosts as they now exist. In the rockery at the entrance to the abbey will be seen an interesting old sun dial, a cresset stone, a statue of S. Margaret, and various carved remains of the abbey. In the church will be seen the tiles recently uncovered, and in the Chapter-house a tombstone also recently unearthed.

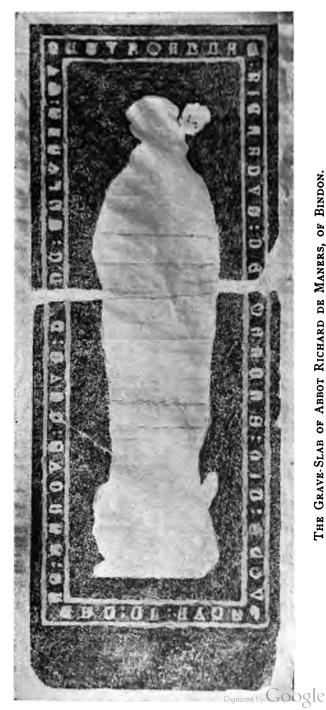
Under Mr. Duke's guidance the party then explored the ruins, viewing in turn the site of the Abbey Church, where the encaustic tiling found last autumn had been bared, the tombs in the Chapter House, an Abbot's stone coffin, Abbot Maners' graveslab (see illustrations), the double piscina, and the "Calvary," under which Mr. Thomas Weld, who in 1770 built the residence within the grounds, constructed wine cellars.

Mr. W. DE C. PRIDEAUX contributed the following notes on Abbot Ricardus de Maners' grave-slab:—

It is stated in *Proceedings VII.*, p. 59, that Abbot Ricardus was the first Abbot of Bindon. This clearly is incorrect, for Abbot John is mentioned in 1191, and Ricardus de Maners lived centuries after. No Abbot Ricardus of Bindon appears in Wallis' list, but an Abbot who was summoned to Convocation in 1408 and 1410 is mentioned without name in a deed of 1404.

The general appearance of the matrix or casement of Abbot Ricardus' slab points fairly definitely to late 14th or early 15th century work; among the few left us unspoiled may be mentioned for comparison Abbot Delamere of St. Albans, 1396, and Abbot Wallingford, 1335, neither being better examples than our Bindon brass would have been; whilst Dorchester (Oxon) can show us an example or two, much inferior.

Of despoiled slabs of similar date that of Abbot Walter in the chancel of Milton Abbey may be taken as a fine example of very similar character and size, being 9ft. by 4ft., as against the 9ft. 6in. by 3ft. 6in. of this massive Purbeck slab.



THE GRAVE-SLAB OF ABBOT RICHARD DE MANERS, OF BINDON.



- 1. Door at Lulworth Castle, formerly at Bindon Abbey.
- 2. THE GRAVE-SLAB OF ABBOT RICHARD DE MANERS, OF BINDON.
- 3. Cresset-Stone in Wool Church.

[Photos by A. D. Moullin.]

The Bindon brass measured 6ft. 8in. in length and was in three pieces, a not unusual arrangement with these large memorials, the indents for jointing pieces being plainly visible in the slab.

Few finer examples remain to us, either for size or simple dignity of outline; the lettering, too, is bold and deeply cut—a specimen throughout of good work that merits careful preservation.

Wool Church.

On leaving Bindon Abbey the party drove to Wool church, and alighted to make a brief inspection of it. The Hon. Sec. expressed regret that the Vicar (the Rev. A. C. B. Dobie) was unable to be with them. He directed the attention of the party, principally, to the triple chancel arch of the 14th century, and the stone cresset lamp with four cavities (see illustration). The Rev. S. E. V. FILLEUL stated that a similar cresset-stone was unearthed at Wareham some years ago with five receptacles.

LULWORTH CASTLE.

A pleasant drive through Coombe Keynes brought the party into the park that surrounds Lulworth Castle.

On arrival at the Castle, the following further paper from the records in the Estate Office was read:—

Tyrrel, in his "History of England," states that Robert, Earl of Gloucester, took "Lulwarde Castle" for the Empress Maude in the reign of King Stephen, and Hutchins, in his "History of Dorset," speaks of the fact that the present castle stands on or near the site of a much more ancient building. The first possessors of the manor are said to have been the De Lollworths, but the powerful family of the De Newburghs held it as early as the reign of King John. Christian, the sole heiress of Sir Roger Newburgh, carried the estate in 1514 to her husband, Sir John Marney, whose second daughter and eventual heiress, Elizabeth, married Thomas, Lord Howard of Bindon, and conveyed the manor, with several other considerable estates, amongst which was the Manor of Bindon, to the Howard family. Thomas, Viscount Bindon, in the second year of the reign of James I. conveyed the estate to Thomas, Earl of Suffolk, and in the year 1641 in the same reign it passed by purchase from James, Earl of Suffolk, to Mr. Humphrey Weld. The present castle was erected between the years 1588 and 1609 by Henry, eldest son of Thomas, first Viscount Howard of Bindon; the stone from Bindon Abbey and Mount Poynings (which stood near Burngate

Farmhouse) being used in its construction. The stones from the cloisters of Bindon are supposed to have been used for the terrace, and tradition assigns as once having belonged to the abbey the beautiful old door now at the servants' It is said that Inigo Jones was the architect of the castle. erection of the building occupied a great many years, and when the Earl of Norfolk was resting here in 1605, little but the outer walls would appear to have been finished, and the place was scarcely habitable. In fact, when Mr. Humphrey Weld purchased it in 1641, a great deal of the interior appears to have been incomplete. The castle is described as an exact cube of 80 feet, with a circular tower at each of its four corners. These are 30 feet in diameter, and rise about 15 feet above the embattled walls. The walls themselves are very thick, in many places about six feet. During the Civil War the castle was at one time garrisoned for King Charles; but in the years 1643-44 (two years after its purchase by Mr. Humphrey Weld) it was held by Captain Hughes for the Parliamentarians as a check upon Corfe Castle. When the garrison was broken up, Sir Bernard Burke says that its members committed a great deal of the most wanton and unnecessary havoc, carrying off and selling the iron window bars, the leaden water pipes, and even a large quantity of the wainscotting of the rooms and chambers.

The Welds are lineally descended from Edric Sylvaticus, alias Wild, who was nephew to Edric, Duke of Mercia, husband of Edina, daughter of King Ethelred. William Weld was Sheriff of London, 25th Edward III. Five generations later, in 1529, Sir Humphrey Weld was Sheriff of London, and Lord Mayor ten years later. He was succeeded by his son, Sir John Weld, of Arnolds, in the county of Middlesex, whose son, Humphrey, of Holdwell, as before stated, purchased the Lulworth estates in 1641. The name of the Welds (originally Wild) was long preserved in London by Wild Street and Wild Court, between Lincoln's Inn Fields and Drury Lane, where Mr. Humphrey Weld built himself a mansion in the middle of the 16th century. The street and court have been swept away only within the last 30 years. He died about the year 1684, and was buried in Henry VII.'s Chapel at Westminster Abbey. Mr. Edward Weld, who held the estate from 1761 to 1775, up n the death of his first wife, married Miss Mary Anne Smythe, daughter of Mr. Walter Smythe, of Banbridge, Hants. After Mr. Weld's death his widow married Mr. Thomas Fitz-Herbert, of Swinnerton, whom she survived. She subsequently married the Prince of Wales, afterwards George IV. The portrait of Mrs. Fitz-Herbert and the pearl necklace which once belonged to her will be on view. Mrs. Fitz-Herbert, until her death at Brighton, was in receipt of an annuity of £800 from the Lulworth estate in addition to what she received from the Crown. Mr. Thomas Weld, who succeeded to the estate in 1810, became a priest, and was made Bishop, and in 1830 a Cardinal. He was the first Englishman since the Pontificate of Clement IX. to take a seat in the Conclave for the election of a Pope. Whilst Cardinal Weld held the estate, the castle was let from 1820 to 1824 to Sir Robert Peel, and from 1824 to 1828 to the Duke of Gloucester. Charles X. of France, with a suite of about 100, occupied the castle from August 23rd to October 17th, 1830, landing at

and leaving from Poole. Mr. Joseph Weld (grandfather of the present owner), who won numerous challenge cups and shields in yacht racing (some of which will be on view), held the estate from 1827 to 1863. He built two models of yachts, one of which was exhibited at the Exhibition of 1851, and can be seen at the Lake.

Lulworth has been frequently honoured by the visits of Royalty. King James I. was entertained here in 1615. In the year 1665, during the Plague of London, King Charles II., attended by the Dukes of York and Monmouth, made a short stay at the castle. In 1789 King George III., together with the Queen and three elder Princesses, came by sea from Weymouth and took up their residence here for a few weeks, and this monarch remained united in friendship with Mr. Weld as long as that gentleman lived. In 1791 the same Royal party repeated their visit by land and spent several hours at the castle. In 1792 their Majesties, accompanied by the then Prince of Wales, four of the Princesses, and other members of the Royal Family, paid a visit to the castle. King Edward VII. paid a visit to Lulworth in April, 1902.

At the conclusion of Mr. Duke's paper the members of the Club inspected many of the objects of interest in the castle, e.g.: Illuminated books, a piece of linen dipped in the blood of Mary Queen of Scots on the opening of her tomb "within a few months after the restoration of King Charles II." with the accompanying certificate, some letters dating from 1686 to 1780, two receipts for delinquency money paid by Mr. Weld, £996, dated 1647, a copy of extracts from the Minute Books of the Dorset Standing Committee, 1646 to 1650, relating to Lulworth Castle at the time of the Civil War, a copy of the will of John Turberville, of Woolbridge, dated 1703, a portrait of Mrs. Fitz-Herbert (widow of Mr. Weld) and a pearl necklace which belonged to her, racing cups and shields won by Mr. Joseph Weld with his fine yacht Alarm, first cutter-rigged and then schooner-rigged, some miniatures, and the seal of William Weld when Sheriff of London in the reign of Edward III. Downstairs the party viewed the richly-carved door from Bindon Abbey (see illustration). But by far the most interesting object on view was the Louterell Psalter, a national relic of priceless value, which, while the property of the Weld family, is on loan at the British Museum, from which it had been got down especially for the occasion. The pictorial embellishment of the Psalter shows that the illuminators were artists of vivid perception, strong

imaginative faculty, ingenuity, and a keen sense of humour, and were closely in touch with the full-bodied, homely, racy English life of the period—husbandry, the chase, the use of arms, devotion, domestic, and industrial occupations. The Psalter contains also the Canticles, Te Deum, Athanasian Creed, Litany of the Saints, and Office of the Dead, preceded by a calendar. It is supposed to have been done for Sir Godfrey Louterell, of Irnham, Lincoln, who was born in 1276 and died in 1345. On page 202, at the end of Psalm cviii., the last of the Psalms sung at Matins, is the inscription in the same hand as the text:—"Dominus Galfridus Louterell me fieri fecit."

Business Meeting.

A short business meeting was held on the lawn, at which twelve members were elected and two candidates for membership nominated.

The Hon. Sec. read the following letter which he had received from Mr. W. H. Hudleston, and made sympathetic reference to his illness:—

8, Stanhope Gardens, Queen's Gate, S.W. June 8th. Dear Mr. Pentin,—I am reluctantly compelled to say that there is no material improvement in my condition. Since the time is getting short, I believe that it will be the best plan to give up the proposed steamboat excursion. This is a great grief to me, as I have long contemplated such a scheme, and am much gratified at its acceptance by the Field Club. Should I survive to see another summer, provided my health has not altogether broken down, I shall have great pleasure in renewing the offer.—Yours sincerely, W. H. Hudleston.

The PRESIDENT also expressed regret at Mr. Hudleston's illness, and then in terms of warm appreciation he expressed the gratitude of the Club to Miss Weld, Mr. Chas. Weld Blundell, and Mr. Henry Duke for all their kindnesses which had made the day so successful and pleasant.

Tea was, at Miss Weld's kind invitation, enjoyed in the open air, the tables being spread on the lawn, and then the party drove back to Wool Station.

SECOND SUMMER MEETING.

WIMBORNE, BADBURY RINGS, AND KINGSTON LACY.

THE SECOND SUMMER MEETING was held on July 17th. There was an exceptionally large party present, numbering about 190, which establishes a record in the annals of the Club.

WIMBORNE MINSTER.

Wimborne was the rendezvous, and, on arrival at the Minster, the Rev. Thomas Perkins, Rector of Turnworth, and author of of a handbook on the church, read the following paper:—

Of all the churches of Dorset connected with religious houses, Wimborne Minster has been the most fortunate. Of Cistercian Bindon scarcely anything remains, save a few low ruined walls covered with ivy, Cerne Abbas may still boast of a splendid barn, a fine gatehouse, and some parts of the domestic buildings incorporated in a farmhouse; but no part of the church can be seen. The still finer barn and a few unimportant remains is all that is left of Abbotsbury. Shaftesbury has fared still worse. Of the great nunnery founded by the greatest of the West Saxon Kings, Alfred, nothing was pointed out to me when I went to live at Shaftesbury, more than a quarter of a century ago, except some massive walls, reputed to be part of those that once surrounded the convent grounds; the site of the church was known, but the foundation lay hidden beneath some gardens. These have been recently uncovered, and now we can clearly trace the outline of the church. Of Milton Abbey, founded by Athelstan, that portion of the fourteenth century church which was begun, though never finished, after the deplorable fire which had destroyed its predecessor, stands in surroundings of surpassing beauty. Sherborne, the church of the cathedral city of the diocese carved off by Ina from the greater diocese which comprised the whole of the West Saxon kingdom, after having its Bishop's stool removed to Old Sarum, and having become only the Abbey Church of a Benedictine Monastery, suffered from a fire caused by riots that originated in a dispute between the monks and the laity; and what we see to-day is mainly a Perpendicular church, which was saved from destruction by the people of the parish buying it from Sir John Horsey, to whom it had been granted. The church of Wimborne Minster has had a happier history, and to-day you see a building which, since its erection in Norman times, has never been swept away, though, as occasion required, it was altered and added to; but these solid tower arches, the massive pillars of the eastern end of the nave, and the greater part of the tower show by their style that they were built in Norman times. church has never ceased to be used for worship, and this day it may boast, in my

xlviii. WIMBORNE, BADBURY, AND KINGSTON MEETING.

opinion, of being the finest and most interesting church of Dorset-if I dare express that opinion in the presence of our worthy Hon. Secretary, who may perhaps put in a like claim for his own Abbey Church of Milton. But why is this church of Wimborne called a Minster? The usually accepted derivation of the word minster is "monasterium"—a monastery, and therefore, in strictness, we should use the word "minster" in cases like that of Westminster, where the church once belonged to a monastic body. But the word was, and is, more loosely used, in some places, of any church something more than parochial. The Archbishop's Cathedral Church at York is often spoken of as York Minster; and this church at Wimborne, which is now a parish church, but was once a collegiate church belonging to a dean and a body of canons, is also called a minster. Old as the oldest parts of this building are, it was not the first that stood in this town; whether on the same site or not is uncertain. In the days of the great Christian King of the West Saxons, Ina, who was on the throne 1,200 years ago, for he reigned from 688 to 725, the first church was founded by one of his sisters, St. Cuthberga, as she is generally called.* No trace of this first church remains. It was probably swept away by the "heathens of the northern sea," who before the end of the eighth century made their appearance on the English shores. Ethelred I., brother and immediate predecessor of Alfred on the West Saxon throne, was buried here. If Alfred restored the old religious house in honour of his brother, we do not know, but a king of the name of Edward, probably "Edward the Unconquered," son and successor of Alfred, founded a house of secular canons here. It is mentioned in Domesday Book as a collegiate church and a deanery in charters of Henry III. It continued to exist till 1547, when the religious house was dissolved, and it became a royal peculiar under three priest vicars, elected by the Corporation. This three-vicar system continued till 1876. The oldest part of the church is the centre, namely, the tower and its supports. You will notice the nearly semi-circular form of the Norman arches, nearly but not quite semi-circular, for since a wider space has to be spanned on

^{*} Mention must be made of a saint better known in Germany than in England, Walburga or Walpurgis. Born in Sussex, niece of St. Boniface, she was educated at Wimborne, took the veil and remained here for 27 years; then, at her uncle's request, she started with some other nuns to found religious houses in Germany. In 752 she founded one at Bischofsheim. In 754 she became Abbess of Heidenheim in her brother Wilibald's diocese, and another of her brothers was Abbot of a monastery there. He died in 760, and Walburga took charge of his house, in addition to her own, till her death in 779. She was buried in a cave near Eichstädt, Wilibald's cathedral city. From this cave a bitumenous oil exuded, which was afterwards known as St. Walpurgis' oil, and was supposed to have miraculous properties. She is commemorated on May Day, a festival previously kept with heathen ceremonial to celebrate the birth of summer; some of these heathen rites survived. All readers of Goethe's Faust will remember how the witches of the Harz mountains kept "Walpurgis' night."

the eastern and western faces than on the southern and northern, the arches in the two first had to have their centres depressed, while the other two are rather more than semi-circles, and have a horseshoe shape, as it is called. This was done to make their crowns all of the same height, the capitals from which they spring all being on one level. No doubt the choir was built first, but this, as was usual in Norman times, was small and had an apsidal ending. generally held that the original nave did not extend so far westward as the present one, the two westernmost bays being of fourteenth century work. The transept was narrow and shorter than now, but there was a chapel beyond the southern end, the lower part of the present wall is the outside wall of this. The upper storey of the tower is rather later than the lower, for the lower has round-headed single arches, while intersecting arches are seen above, heavy parapet and corner pinnacles are, of course, much more recent. The church grew outwards in every direction. And it is not difficult to approximate to the date of these extensions. The upper part of the tower, the outer walls of which are decorated with intersecting arches, dates from about the middle of the twelfth century. The date of the altered choir and added presbytery is fixed by the character of the east window, which shows indication of the change from Early English to the plate tracery of the Decorated. The windows of the aisles and the two western bays of the nave are fourteenth century work, and the western tower proclaims its date to be about the middle of the fifteenth century. This second tower, arranged in tandem fashion with the early one, is an uncommon feature. Many churches have two western towers, some in addition to, some without any completed central towers. Exeter and Ottery St. Mary have two towers rising at opposite ends of the transept. Ely Cathedral Church had two arranged as here; the central one fell, and its place was taken by the existing lantern. At Hereford, where a similar arrangement existed, the western tower fell, and was not rebuilt, so that, as far as I know, Wimborne and Wymondham are unique in this respect. The arrangement is not a satisfactory one, and never became common. The raised presbytery gives an air of importance to the east end; below its floor is a crypt which you should all visit. The oaken benches which take the place of altar rails are unique. The use of the houseling linen which covers them is very ancient. I once heard a cleric say that if he were vicar here he would soon have those horrid benches removed and proper rails put in their places. That no such vandal may ever be vicar of Wimborne must be the prayer of all archeologists such as you are. The brass of Ethelred, not, of course, contemporary with Alfred, demands your attention, and the beautiful altar tomb of John Beaufort (nephew of Cardinal Beaufort), and his wife, Margaret, Duke and Duchess of Somerset, father and mother of the Lady Margaret, who founded Christ's and St. John's Colleges at Cambridge, to whom I feel a debt of personal gratitude, as I held at one time a Lady Margaret Scholarship at the former college. The relic chest, carved from a solid block of oak, and the Etricke tomb will both be found in the south choir aisle. This Etricke was Recorder of Poole, and he it was who committed the Duke of Monmouth for He desired to be buried neither inside nor outside the church, and got

1. WIMBORNE, BADBURY, AND KINGSTON MEETING.

permission to cut out a space for his coffin in the wall. Moreover, he not only built himself the coffin of slate, but dated it beforehand, having an idea that he would die in 1691, but, as a matter of fact, he did not die till 1703. Hence the two dates you may see on the coffin. He left money to the church to keep the niche and coffin in order, hence the neat appearance they wear to-day. The renaissance Uvedale Monument (carved by an Italian sculptor) in the north aisle is a good example of its age; but I think few will consider that the Beaufort tomb is not a far more fitting memorial to the dead. Three more objects demand your attention:-The Norman font, the clock in the western tower, made by Peter Lightfoot, a Glastonbury monk in the fourteenth century-(you can see the face, on which is indicated the time of day and the age of the moon)-and also the library, with its books chained to the shelves on which they stand in such a way that they can be moved for reading, but not removed from the room. A similar library exists at Hereford. As you leave the church you should notice on the north face of the western tower a figure, worked by the clock already mentioned, which strikes the quarter-hours upon two bells.

Mr. WALTER FLETCHER, F.R.I.B.A., added a few words calling special attention to the beautiful Altar Tomb, on the south side of the chancel, which was erected by the celebrated Lady Margaret, Countess of Richmond, and mother of Henry VII., upon which he and Mrs. Fletcher had prepared a paper, which was, he feared, too long to read on this occasion.

The PRESIDENT, having expressed the thanks of the Club to the Vicar (the Rev. J. M. J. Fletcher) for receiving the party, and to Mr. Perkins and to Mr. W. Fletcher, the party proceeded, under the guidance of Mr. Perkins, to inspect the various objects of interest which he had mentioned.

At the brass of Ethelred the Hon. Sec. observed that brass rubbers often came to the Minster to rub this brass, it being the only brass to a king in England (see illustration).

BADBURY RINGS.

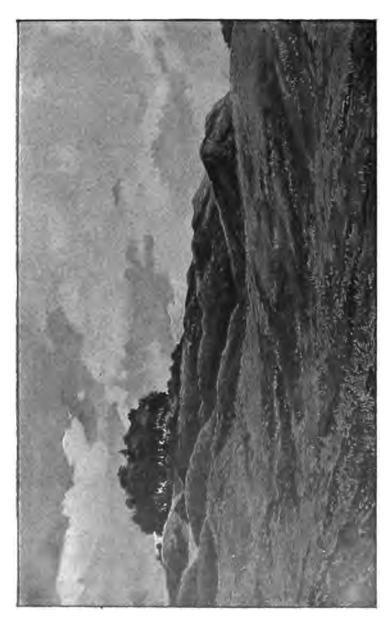
The party next drove on to Badbury Rings (see illustration). Here Mr. WALTER FLETCHER made a few observations upon the Rings.

This very interesting earthwork differs materially from other entrenched works in the county of Dorset, and on this account it has been called by Dr. Smart an antiquarian puzzle. Its plan is circular, and in this and several other ways it



THE ETHELRED BRASS IN WIMBORNE MINSTER.

[From H. Druitt's Manual of Costume (De La More Press).]



BADBURY RINGS.

somewhat resembles Old Sarum, which is undoubtedly of Celtic origin. So Badbury may, without question, be assigned to the same era. The entrenchments consist of three concentric ramparts of chalk, flanked by corresponding ditches of considerable depth and width. The fortification had two entrancesone on the east, in almost a straight line, and one on the west, with much more extensive works of protection. Both Mr. Warne and Dr. Smart agree that the central portion of Badbury Rings is of Celtic origin, answering to Cæsar's description of the British oppidum, or place of refuge in case of invasion, for the tribes living in the immediate neighbourhood. The name appears to have been derived from the Celtic word "Bad" or "Abad," meaning habitation or town. Both these authorities also concur in thinking that the two outer ramparts are of more recent date. Dr. Smart suggests that the middle one, with its rampart and ditch, may be the work of the Romans, and that the third or exterior area may have been added by the Saxons. Leland speaks of it evidently from hearsay :-"The Saxon Kings had hard by the town of Wimburne a castelle now caulled Bad Byri, but clerely down the ditches, hills, and site thereof, be yet evidently seene." Aubrey says of it:- "Bad Bury Campe is very great, but it is a rude oblong fortification with double and treble works, ramparts, and groffes; therefore, I affirm it to be no Roman camp." The area of Badbury is about 18 acres in extent, and the length of the outer circle of the fortification is just under a mile. This part of England was, in the Celtic times, inhabited by the Durotriges, who, as the name implies, were "dwellers by the water," and whose territory extended along the coast from the mouth of the River Avon at Christchurch to the Axe at Seaton, and from the coast inland to the chain of hills that form a natural protection on the north. The Roman Road from Sarum (Sorbiodunum) to Dorchester (Durnovaria) passed close to Badbury Rings. It is known as Ackling Dyke, or Iceniana, or Icenway, and another Roman road from Hamworthy (Moriano), probably to Bath or the Bristol Channel, past on the east side of Badbury, traces of which can still be seen. Mr. Fletcher added that Mrs. Bankes, of Kingston Lacy, had kindly had a section of the Roman Road near the house opened up. They were rather disappointed in finding that it was not a metalled road. Mr. Le Jeune kindly helped him in the work.

The President said he remembered on the occasion of the last visit of the Club to Kingston Lacy many years ago going with Mr. Mansel-Pleydell and a small party along the Roman Road. His impression was that it was metalled in parts. His memory was of a track across a ploughed field thickly strewn with flints. Mr. Fletcher replied that the part on the Hamworthy side certainly was metalled; but he had never seen any metalled on this side. A question being raised as to the possibility of distinguishing between Roman roads and

lii. WIMBORNE, BADBURY, AND KINGSTON MEETING.

British trackways, Mr. ALFRED Pope remarked that Roman roads were nearly all consolidated, as if wheels had been driven over them, whereas British trackwavs were deeply sunk in the soil, did not go straight, and had been used only for pack horses. Captain ELWES observed that there was some ambiguity about the term "Roman roads." When it was used they generally thought of the Roman military roads; but besides these there were the limites, or Roman lanes, dividing the country into estates of about 240 acres. Traces of these limites were not entirely obliterated; and it was possible that in a county so unsophisticated as Dorset many farms might still be of the same dimension, and delimited in the same manner, as The Rev. E. HERIZ SMITH mentioned the in Roman times. tradition that Badbury Rings was the Mount Badon where King Arthur beat back the pagan invaders. The PRESIDENT again thanked Mr. Fletcher for his kind assistance.

A short business meeting was then held, at which four members were elected and six candidates for membership nominated.

KINGSTON LACY.

On arriving at Kingston Lacy, the party were welcomed by Mrs. Bankes, and Mr. W. Albert Bankes, who acted as the Club's cicerone.

Mr. Bankes, to welcome the Dorset Field Club and all their friends to Kingston Lacy. Kingston Lacy, continued Mr. Bankes, takes its name from its ancient owners, the Lacys, Earls of Lincoln, who held it with Shapwick and Blandford. Lying two miles north-west of Wimborne Minster, it has been the seat of the Bankes family since 1660, in which year of the Restoration it was built by Sir Ralph Bankes on the supposed site of a palace of the West Saxon kings, and after designs bequeathed by Inigo Jones. The plan of the well-proportioned suite of reception rooms and the principal arrangements of the interior remain now nearly the same as originally; but the whole of the exterior, formerly of red brick with stone coigns, was between the years 1834 and 1844 faced over with Caen stone and embellished with decorations and details in the purest Italian style. This was done under the care of the late William John Bankes, M.P. for the University of Cambridge, with the assistance of the late Sir Charles Barry, R.A., then a rising

architect of the day. Mr. Bankes began his extensive alterations immediately upon the death of his (the speaker's) grandfather, and upon his accession to the property in 1834. Mr. Albert Bankes then invited the party to enter the entrance hall and follow him up the handsome staircase of white Carrara marble, 30 feet wide, which leads to the second floor. This staircase, he stated, was copied by his uncle, William John Bankes, from that at Wolfeton House, near Dorchester. Leave must have been given by the Trenchard family, to whom Wolfeton then belonged. The rooms on the first floor are the library, the drawing room, the large dining. room, the small dining room (commonly called the Spanish room), and the saloon. On the first landing Mr. Bankes called attention to the three cleverlyexecuted statues by Baron Marochetti of King Charles I. and his loyal subjects, Sir John Bankes and his wife, the celebrated "Brave Dame Mary of Corfe Castle." The bronze bas-relief at the foot of the statue of King Charles I. was designed by the late Mr. H. N. Bankes. The original cast, skilfully restored by Mr. Charles S. Prideaux, was presented last month by Mr. E. R. Bankes to the Dorset County Museum, where it may now be seen. Sir John Bankes, the guide stated, was the first member of the Bankes family to migrate into Dorsetshire from Cumberland, where at Keswick the old manor house still stands, decorated with the armorial bearings of the Bankes family. Sir John bought Corfe Castle in 1635 from Lady Elizabeth Coke. In January, 1640, he was made Lord Chief Justice, and followed King Charles from Westminster to York, having left Lady Bankes to defend the castle at Corfe. Sir John died in 1644 at Oxford, and was buried in the Cathedral of Christ Church, where a monument with a Latin inscription was erected to his memory. In Ruislip Church, county Middlesex, was a monument to Lady Bankes, who was the only daughter of Ralph Hawtrey, of that place. It stated that she "bore with courage above her sex a noble proportion of the late calamities, and had the happiness to outlive them so far as to see the restitution of the Government. She died on April 11th, 1661." Conducting the party into the library, Mr. Bankes observed that Kingston Lacy had long been famous for its very valuable collection of pictures. Among them were the portraits by Cornelius Jansen of Ralph Hawtrey and his wife, the parents of Lady Bankes, and the portraits by Van Dyck. Besides their intrinsic value as genuine and fine works by masters of such reputation, they were doubly interesting as having formerly decorated the now shattered walls of Corfe Castle. These pictures, Mr. Bankes continued, were fortunately rescued, and, with the keys of the gates of Corfe Castle, which "Brave Dame Mary" never yielded up, they are, besides the bare ruined walls of Corfe, the only relics still remaining of that once stately castle. He pointed to the keys, hanging over the mantelpiece. Calling attention to some of the most interesting pictures, Mr. Bankes said it was uncertain who was the painter of the four pictures of SS. Ambrose, Augustine, Jerome, and Gregory; but they were attributed to Denis Calvart, one of the Caracci, or some other leading master of the Bolognese School. Seven family portraits by Sir Peter Lely were painted in the house. Sir Joshua Reynolds, who paid a visit to Kingston Lacy in company with Dr. Johnson, declared that "he never fully appreciated Sir Peter Lely till he had seen these portraits." The

ceiling picture, painted in fresco, representing Day and Night as colossal figures divided by Twilight, was by Guido Reni, and came from the Zampieri Palace at Bologna. It was notable as being the first picture on which was ever tried the experiment of transferring fresco to canvas.

Leading the party from the library into the drawing-room, Mr. Albert Bankes observed that they would notice on the upper cornice the motto of the Bankes family, Velle quod vult Deus-" Wish what God wishes." The picture he first called special attention to was the full-length portrait of his grandmother by Romney. Periodically it was taken up to London and lent to the Exhibition of Old Masters at Burlington House. The portrait of Mrs. Woodley, mother of Mrs. Bankes, by Sir Joshua Reynolds, was deservedly admired. He also pointed to the portraits by Van Dyck of Sir John and Lady Borlase. Sir John Borlase, one of the Lords Justices of Ireland, was M.P. for Corfe Castle in 1641, and Lady Borlase was the eldest daughter of Sir John Bankes. The portraits of Mrs. Riddell and the Countess of Falmouth were by Sir Thomas Lawrence. He called especial attention to the collection of miniature portraits of Queen Elizabeth and the principal members of her Court, enamelled on copper by the celebrated artist, Henry Bone, R.A. By this means the figures and features of the individual characters would be preserved and handed down to future ages when the canvases from which they had been copied should long have perished.

Conducting the party next to the great dining-room, Mr. Bankes pointed first to the organ, and drew attention to the doors made of boxwood by a celebrated carver at Siena in 1854. Under the carpets was marked the spot where formerly stood the bed on which the illustrious James, Duke of Ormond, breathed his last Mr. Bankes added the interesting statement that Sir Ralph Bankes. who was knighted at Canterbury in 1660, married the daughter of John Brune, of Athelhampton. He died in 1679, and during the minority of his son, John, the Duke of Ormond rented Kingston Lacy until his death in 1688. As to the pictures adorning the walls, Mr. Bankes first drew attention to the unfinished picture of "The Judgment of Solomon," by Giorgone. Dr. Waagen, the eminent German art critic and author of "Art Treasures in England," said he considered this to be the most important of the whole collection. purchased by the speaker's uncle, the late Mr. W. J. Bankes, M.P., by the advice of Lord Byron, his most intimate college friend. Lord Byron considered the face of the pleading mother in this picture to be the perfection of female loveliness. The party admired the wonderful drawing of the four subjects from Ovid's "Metamorphoses." These pictures, as Mr. Bankes observed, look like tapestry, but are simply painted on canvas.

The party were next shown into the smaller dining-room, which, from its pictures and from the Spanish leather on the walls, has always been known as the Spanish Room. Mr. Bankes quoted the words of Dr. Waagen from his work already mentioned, "I know of no other collection in England containing so many valuable pictures of the Spanish school." The author also called particular attention to the gilt and crimson leather wall hangings. The glorious painted ceiling, by Paul Veronese, was brought whole, as it now appears, from

the Contarini Palace at Venice. Pointing to that beautiful example of Murillo's work, the beggar boys eating fruit, of which favourite picture there is more than one repetition in other galleries, Mr. Bankes stated that it was bought in Spain by his ancestor, Mr. John Bankes in the year 1657. while Murillo was still alive, but whether direct from the artist himself was unknown. Another rare treasure in this room was the original aketch by Velasquez of "Las Meniñas (The Maids of Honour) for the large picture which he had seen in the Royal Gallery at Madrid, and of which he had a small copy at Wolfeton House. The only difference between the sketch and the large picture was that in the large picture there appeared a cross of knighthood on the breast of Velasquez, and Mr. Bankes told the charming anecdote which explains the discrepancy. The King of Spain, on first seeing the large picture, was so delighted with it that, calling Velasquez, he said "Lend me your red paint brush. Your picture is excellent, but requires a couple of touches." The King then painted a cross on the chest of Velasquez, thereby knighting the successful artist there and then. The little angel, with a Cardinal's hat, also has a history. It was found in the knapsack on a dead French soldier's back on one of the battlefields in Spain, and had evidently been cut from some large altar piece. In the three doors the six upper panels represented emblems of spring and summer and the six lower panels emblems of autumn and winter. The original designs were drawn by his uncle, Mr. W. J. Bankes, and executed by Italians in Italy.

Leading the way into the saloon, Mr. Bankes explained that until 1835 it was the entrance hall, and reached from the outside by means of a flight of broad stone steps, such as exist at present at Kingston House, near Dorchester, belonging to Mr. J. Herbert Benyon. The ceiling was painted by Italians. The pictures are of exceptional value and interest. Mr. Bankes pointed out the portraits by Van Dyck-of Charles I, and his Queen, Henrietta Maria, and their three children, afterwards Charles II., James II., and the Princess of Orange, and Richard Weston, Earl of Portland, Lord Treasurer to Charles I. and a great personal friend of Chief Justice Bankes. Next he mentioned the portrait of Mr. Altham, painted as a hermit at Naples by Salvator Rosa. Mr. Altham was a - cousin of Sir Ralph Bankes, whose brother, Jerome, he accompanied on his travels through Italy. This picture was believed to be the only portrait of any Englishman by Salvator Rosa in existence. Mr. Bankes, with a quite unnecessary apology for "taxing the patience" of the party, next drew attention to a few more unrivalled paintings. The first was by Raffaelle, "The Virgin and Holy Children," known as "La Madonna della Ruina," cited by Vasari as having been painted by Raffaelle for the Duke of Urbino. It afterwards became the property of King Charles I., whose crown and cypher (the mark of his private collection) still remain stamped on the back. The two portraits flanking the fireplace, one on either side, were perhaps the most refined and finished pictures ever painted by Peter Paul Rubens. Both were purchased by Mr. Bankes in Genoa from the Grimaldi Palace. Lastly, also by Rubens, was a lovely group of four children playing with pigeons beneath a rich festoon of fruits and flowers by Snyders.

lvi. WIMBORNE, BADBURY, AND KINGSTON MEETING.

Having finished the inspection of the interior, the party, still under Mr. Bankes' guidance, proceeded to view the exterior of the house from the south or garden front. While they were standing on the terrace Mr. Bankes stated that the wine cellars were built under the entire length of it. When his eldest brother succeeded to the property in 1856 he discovered a portion of the cellar bricked up and full of port wine, which had lain there unobserved for many years. A large percentage of the bottles had become uncorked from age; but where the cork had remained firm the wine was quite perfect. From the terrace they could observe that the house was built on the side of a hill. The garden side is on the level of the top of the hill, whereas the entrance is at the bottom. The party moved from the terrace to see the Egyptian obelisk, noticing by the way the vases and well-heads of red Siena marble, bronze lions from Herculaneum, a large Egyptian granite sarcophagus, and two well-heads copied from Italian ones and sent over between 1850 and 1860 by Mr. W. J. Bankes. The Egyptian obelisk was brought from the Island of Philoe in 1819. It was of the total height of 30ft. 8in. As stated by inscriptions on metal round the base, Mr. W. J. Bankes, M.P., caused the obelisk and the pedestal (from which it had fallen) to be removed under the direction of Belzoni from the Isle of Philoe, beyond the first cataract of the Nile, and brought the platform from the ruins of Hiera-Sycaminon, in Nubia. The inscription on the obelisk and pedestal recorded their dedication to King Ptolemy Euergetes II. and two Cleopatras, his Queens, who authorised the priests of Isis, in the Isle of Philoe, to erect them (about 150 years before Christ) as a perpetual memorial of exemption from taxation.

On the way from the obeliak to the lawn for tea Mr. Bankes pointed out the cedars planted by the Duke of Wellington and, in line with these memorials of the "Iron Duke," that planted by King Edward last autumn.

At Mrs. Bankes' invitation the party then partook of tea; after which many of the party accompanied Mr. Fletcher to the further side of the Park to examine the section that had been opened by Mrs. Bankes on the site of the Roman Road. The raised track was clearly visible, but no signs of any pitched or even gravelled road could be found. This trackway, which is spoken of by Dr. Smart, was most likely used for watering stock, it being the shortest line from Badbury to Barford.

Before leaving Kingston Lacy, the PRESIDENT, in the name of the Club, assured Mrs. Bankes of their hearty appreciation of her hospitable reception, and also thanked Mr. Albert Bankes for so ably and agreeably acting as guide.

THIRD SUMMER MEETING.

FROME AND LONGLEAT.

THE LAST OUTDOOR MEETING of the season was held on August 27th. The party numbered between 60 and 70.

Arriving at Frome, the first place visited was the Church of S. John the Baptist, which, if tradition is true, was founded about 680 by S. Aldhelm. One of the chief mementos of the Saint, in the church, is a richly-carved stone built into the wall—a portion, so Bishop Browne, of Bristol, declares, of the base of the cross erected at Frome during the translation of the body of S. Aldhelm. He was carried to Malmesbury, and at every halting-place a cross was set up. The chalice and paten of Bishop Ken, and also his tomb, were viewed with much interest by the members present.

A section of the party next proceeded to Mr. Singer's house to see his collection of old English drinking-glasses, book plates, jewellery, German and Flemish processional crosses, &c. The other section visited Messrs. Singer's art metal works.

Luncheon was partaken of at the George Hotel, Captain Elwes presiding in the absence of the President.

The party then drove to Longleat, the seat of the Marquess of Bath, and were conducted over the "show" rooms by the housekeeper, who pointed out the many features of interest.

On the return to Frome a short business meeting was held, at which six members were elected and four candidates for membership nominated.

The party then drove to the station and took the 5.26 train for Dorset.



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Porset Aafural Kistory and Antiquarian Field Elub.

RECEIPTS AND EXPENDITURE FOR THE YEAR ENDING DECEMBER 318T, 1905.

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G. B. ELWES,

Hon. Treasurer.

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Total Balance in favour of Club ...

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Dorset Aafural Bistory and Antiquarian Field Club.

HON. SECRETARYS ACCOUNT FROM MAY, 1905, TO MAY, 1906.

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HERBERT PENTIN,



Anniversary Address of the Bresident.

(Read May 16th, 1906.)

commence my Address with an expression of deep regret at the number of our friends who have passed away since our last annual meeting, some of whom were so frequently seen amongst us in this room on these occasions. Mr. C. W. Dale was an original member of our Club and (I believe I am correct in saying so) the last survivor of those who contributed the papers contained in our first volume of Proceedings. We have had

other communications, both natural history and antiquarian, from his pen, and he has also published "The History of Glanvilles Wootton," "The History of British Butterflies," and "The Lepidoptera of Dorset," as independent works, besides numerous notes in the entomological magazines. In a general all-round knowledge of insects there are few entomologists of the present day who could compete with him, most of them confining their attention to one or perhaps two orders, and his fine collections made by his father, but much added to by himself, and which are left to Oxford, can only be regarded

as an irretrievable loss to this county. Many of us will remember the Club's last visit to Glanvilles Wootton in 1900 and the samples of the 377 drawers of British insects displayed by our kind host. I have personally many pleasant memories of expeditions in his company, by day and night, to Portland and elsewhere after moths.

The Rev. W. R. Waugh, F.R.A.S., was an astronomer of some note, and was for years the head and editor of a band of more than 40 observers of the planet Jupiter, a paper on which he contributed to our Proceedings, as well as one on Nova Persei (1901) and others. In spite of his great age his enthusiasm for his science was undiminishd, and he had always something interesting to tell us about the stars, the zodiacal light, or other strange phenomena. His last communication was on the subject of the lunar cross which was seen by Mrs. Richardson and myself, and illustrated in our last volume. What deep interest he would have taken in the new dark spot which has just appeared on Jupiter, in addition to the red spot he observed so often.

Miss Dansey's genial presence will be greatly missed by all her friends. She took an enthusiastic interest in various branches of archæology, especially coins.

Though the other members whose loss I record did not often attend our meetings, they all took an interest in the Club, and helped us in various ways.

We have been indebted to the late Earl of Ilchester on more than one occasion for allowing us to see his interesting house at Melbury, and to visit his gardens and swannery at Abbotsbury. Mr. Alfred Pass, a well-informed antiquarian, was a benefactor to the County Museum, and would doubtless have taken more part in the work of our Club had it not been for ill-health and remoteness of residence. Captain Payne-Gallwey, a man of high attainments, and Sir Richard Howard had no leisure to give more than a general support to the objects of the Club.

I regret that I omitted last year to allude to the death of Dr. Turner, of Poole, whom I remember in 1887 as our guide in that

town at the first meeting of the Club at which I had the honour to be present. He possessed much general antiquarian and natural history information, but had little time in which to increase or impart it. Of those not actually members of our Club, I would mention but two who have been taken from us. One is Dr. W. T. Blanford, F.R.S., a man of high scientific position as a geologist and zoologist, who has occasionally been present at our meetings, and is doubtless, known personally to some of us. The other is the Rev. S. J. Johnson, F.R.A.S., late Vicar of Melplash, near Bridport, well-known for his writings on eclipses and other astronomical subjects.

The list in Vol. XXVI. shows that we have still amongst us 18 original members. From these we must now deduct two, one being the late Mr. Dale, the other having been included by mistake. On the other hand there are three original members who are not so specified in the list, Mr. Darell (formerly Darell-Stephens), Mr. W. J. Fletcher, and, lastly, one whose valuable work in the Club I can, perhaps, appreciate better than anyone else; I mean my predecessor in the office of hon. secretary and editor, the Hon. Morton J. Stuart-Gray, then known as Morton J. Stuart. If you will look back at some of the earlier volumes of Proceedings you will see how much we are indebted to him for methods and ideas which have been acted upon by his successors, and now form the groundwork of the rules under which we exist. We have, therefore, at the present time 19 original members.

I now proceed to mention a few of the more important advances in science which have taken place since my last address.

ZOOLOGY.

One of the most practical ways in which the science of zoology has benefited the human race of late years has been in the discoveries made in regard to the life history of those minute organisms which are associated with various diseases both of

man and beast. At the British Association meeting this year in South Africa, a paper was read by Colonel Bruce, giving much information on the various diseases of stock in South Africa, connected with these organisms, and the best means of combating them. In some cases the parasite passes one stage of its existence in the body of a tick, and is thus conveyed to the animal to which the tick attaches itself; in others it is conveyed by a fly. In several instances a great difficulty in stamping out the disease is caused by the fact that the wild animals harbour and propagate the parasites, though they do not suffer from them like the domestic ones, just as the natives propagate the parasites of malaria without harm to themselves. Sleeping sickness and other human diseases are produced in a similar way, and much progress is also being made in the knowledge of them. Another difficulty in some of these diseases is that the parasites cannot be discovered, and are supposed to be too small to be seen by our microscopes. The parasite of yellow fever, for instance, has never been seen, though there can be little doubt that it exists. Many new protozoal parasites, including various new species of trypanosomes, have been discovered during the past year, and it is to be hoped that in time many of the diseases they produce will, like malaria, be brought under some control. Malta fever has received much attention in the last year, two suspected causes being goat's milk and certain gnats. Even paralysis has now been stated to be caused by a bacillus; if so, confirmation will, no doubt, be forthcoming. May we, whilst we study the scientific aspect of these diseases, take a practical lesson from the wonderful immunity from them, especially enteric fever, enjoyed by the Japanese army in their late campaign, which was entirely due to the careful attention to details of their medical officers, and the way in which their instructions were conformed to by the troops.

The researches of Professor Jennings, published during last year, show that even amongst these lowest living creatures there are evidences of intelligence which it will be, perhaps, more easy to realise when we consider that it is not so long ago that anything beyond "instinct" was entirely denied to exist in the brute creation.

Another effort has been made to prove the existence of spontaneous generation, but the evidence is unsatisfactory, as is also that in favour of mutation or the sudden development of new species from the seed or young of existing plants or animals, which has also been again lately brought forward. Much has been written, especially in the newspapers, about radiobes, or certain bodies developed by the action of radium on gelatin, which, beginning in the form of bubbles, expand, and seem to contain a nuclear structure, and after about a fortnight begin to break up and disappear. It had been suggested that these partook to some extent of the nature of living organisms, but the suggestion has not been favourably received, and there is still no evidence whatever of the development of a living organism from non-living matter.

The recent research carried out by the survey ship, "Investigator," in the Indian Ocean has added to our knowledge of the great sea depths and their inhabitants. For instance, of 75 deep sea holothurians collected, no less than 60 are new to science, a proportion which it would be impossible to rival in any group in most parts of the world at the present day.

In regard to insects, the British Museum has received a valuable bequest in the collection of beetles of the late Mr. A. Fry, containing about 72,000 species. Some work has been done towards mitigating the injuries caused by insects, and it is interesting to note how sometimes they suddenly change their usual habits, as in the case of Rhyphus fenestralis, the common and harmless window fly, so often looked upon as a venomous gnat from a superficial resemblance, the larvæ of which were found in one case to be destructive to honeycomb, though they usually feed on a much less attractive substance (cow manure). The newspapers gave various theories as to the origin of a plague of flies at Cardiff last May. They belonged to the English species Dilophus febrilis, always common, but then, through favourable conditions, in swarms.



Experiments made by Mr. H. Piéron pointed to recognition amongst ants being caused by an olfactory sense in the antennæ. He anointed the ants of one community with an infusion of the ants of a second community, by which latter they were then treated as friends. He also found that an ant deprived of antennæ attacked friends and foes alike. A most careful observer, Father Wassman, who has just published the results of his work, denies intelligence to ants, though he speaks of the marvellous sagacity of their animal instinct. He considers Formica sanguinea, a slave-making ant, the most gifted of the European kinds, and records 2,000 nests of it in his neighbourhood, belonging to 410 communities. The tendency of slave-making amongst ants is, however, to make them most helpless beings, unable, in some cases, even to feed themselves.

To turn to vertebrates, I may notice the extraordinary decrease of alligators in the past 25 years in the neighbourhood of Florida—where they used to swarm—they are now almost rare, owing chiefly to the demand for their leather, and to the fact that they have no friends to move for their protection as in the case of Newfoundland seals, where protection has been most successful.

The number of known South African fresh water fishes is now nearly 1,000, and Mr. Boulenger has shown what geological lessons may be learnt from their distribution. For instance, the great difference between the fishes of the Nile and Congo basins points to a former separation, until quite recently, though these systems now interlock. Fish do not vary much down the whole length of the river, though the land animals at the mouth and source may be quite distinct. From experiments lately made it would appear that fish have no sense of hearing, loud explosions in water being unnoticed by them.

The first report of the British North Sea Investigations Committee, which has been at work for three years, has been published, and deals with the hydrography of the North Sea, catches of fish, their habits, migrations, and other matters. Of 1,463 plaice marked and liberated, no less than 287 have been

returned to the committee. The results of these experiments show that the smaller fishes do not migrate much, but one larger fish travelled 175 miles in six weeks, and another 210 miles in eight months. They usually move southwards in winter, and northwards in summer. Fish transplanted to the Dogger Bank grew much faster than those which remained near the shore. The early life history of eels is not well known, and the finding of great numbers of these in the early stage, in which they have received the name *Leptocephalus*, at a depth of 550 fathoms off the Faröe Isles, is strong evidence that they breed there and migrate thence, but further investigations will doubtless throw more light on this obscure subject.

At the fourth International Ornithological Congress, held in London last June, attention was called, amongst many other matters, to the work accomplished throughout Hungary, similar to that done by our members (alas, very few!), who record the earliest and latest appearance of migratory birds. It has been found that swallows take 105 days to complete their migration from Gibraltar to Lulea, in North Sweden. Dorset is too small to act alone in this matter, but, if similar records are kept by other Field Clubs in this country, their united efforts would, no doubt, add much to our knowledge of this subject. The breeding places of the emperor penguin were discovered by the National Antarctic Expedition. The bird lays but one egg, which it incubates in a standing position, keeping the egg from contact with the ice by resting it on its foot. Hatching takes place in the coldest month of the year—August.

In an address given at Adelaide it was stated that the starling and sparrow are the most thoroughly established of European birds in Victoria, the former being a great benefactor, the latter not. Thrushes, blackbirds, and greenfinches have also established themselves to a small extent, but the reverse is the case with chaffinches, yellow-hammers, and siskins.

A New Zealand parrot, the Kea (Nestor notabilis), has for many years suffered from the reproach that it kills sheep by pecking a hole in their sides to get at the kidney fat. The subject was

discussed at a recent meeting of the Wellington Philosophical Society, and it was then stated that investigations undertaken independently by a number of New Zealand gentlemen showed absolutely no evidence whatever of such a habit. This authoritative statement has, however, brought forth what seems to be reliable evidence that the Kea is, in some districts, most destructive to sheep, though it would appear that it has no special partiality for the kidney fat, but relishes any part of the animal.

Extensive experiments have lately been conducted by Professor Chittenden in America on man, and by Professor Schäfer in Europe on rats, in regard to diet. Both are omnivorous, and the results are curiously similar. The human experiments on the Professor, his colleagues, and numerous other volunteers lasted many months, and showed that a much smaller allowance of meat than most people think necessary is desirable. In the case of rats a meat diet was distinctly harmful, that of bread and skim milk being the best of those tried. It should be mentioned that Professor Chittenden, at all events, is not a vegetarian.

The experiment of keeping tropical monkeys, which are very liable to tuberculosis, in the open air has been tried at Dublin with success, and an Indian species might have been seen lately sitting happily in the snow. From two specially selected Shetland and Welsh ponies Professor Ewart has succeeded in obtaining a foal, which closely resembles the tarpan, the Siberian wild horse—a strong piece of evidence as to the origin of these breeds. Several new mammals are described from the Phillippines, the natural history of which is being vigorously worked out by the Americans. A giant eland has also been found in Central Africa, which was only known before by a pair of horns.

Of less interest is the occurrence near Roscoff, in the English Channel, of a rare whale (*Kogia* sp.), never before found in European waters. The regeneration of a bony structure in the *Mammalia* must be of very rare occurrence, as it has not been hitherto recorded, but three specimens of dormice have now

been found showing this phenomenon. In these the twelfth caudal vertebra, which had been originally broken across, had grown out into a slender styliform appendix 3-5th inch in length and 1.25th inch in diameter. From these three specimens it would seem that dormice are able to partly grow new tails, like lizards, when they are broken off.

An interesting exhibition of old Natural History books has lately been held at the British Museum (Natural History) in South Kensington. Aristotle leads the way, followed by many others, up to the time of Linnæus.

BOTANY.

I do not think there is anything of an extremely important nature in botanical science which has been discovered since our last annual meeting. The chief subject discussed by the International Botanical Congress at Vienna was that of botanical nomenclature, which had been referred by a former Congress to a committee. The year 1753, in which Linnæus first established his system of binomial names, was accepted as the earliest date for priority, and other points were settled. It is greatly to be wished that there might be some authority whose decision should be unquestionable, to deal with this troublesome, though necessary appendage to the study of Nature.

It is hoped that a discovery by Köhler may enable use to be made of the ultra-violet rays in the microscopic examination of living cells, so that we may be able to see in life those differentiations of structure which have hitherto only been perceptible by the action of stains on the tissues. Certain portions are more opaque than others to these rays, whereas ordinary light would show no distinction. This opens a wide field of investigation, and will doubtless produce interesting results.

A recently-published German book, by Professor Haberlandt, deals with the light-perceiving organ of plants. He accounts

for the fact of leaves turning themselves to the light by the presence of transparent spots, which are practically lenses concentrating the rays of light, or rudimentary eyes, and which tend to look, so to speak, straight at the light, so as to receive the greatest amount of it. When the leaf is immersed in water this twisting movement ceases, owing, the author considers, to these lenses ceasing to refract the light rays, through immersion in a medium of equal refractive index. Some leaves, as Tropæolum, are not wetted when immersed, but remain coated with an air-film, and continue their movements, unless this film is removed with dilute alcohol. Such leaves, as well as those with a velvet surface, would not be affected in this respect by rain. The important subject of tree diseases has been taken up by the Board of Agriculture, who have lately issued a series of coloured diagrams, showing 45 kinds of diseases. Great loss may be prevented by timely recognition and attention.

In regard to some of the lowest forms of plant life, a new explanation of the movements of diatoms has lately been proposed—namely, that they are due to the emission of gas. The idea was suggested by the very similar movements of a lithia tablet in water when giving off bubbles of gas—"a sudden advance in a straight line, a little hesitation, then other rectilinear movements, and, after a short pause, a return upon nearly the same path by similar movements." Further experiments showed similar results.

GROLOGY.

The determination of the length of periods of geological time is a question which has received much attention, but which it seems improbable will be ever satisfactorily determined. In his address, as President of the British Association, Professor George Darwin dealt with this subject, and stated that the smallest possible age of the moon since its birth, based upon

calculations of the effect of tidal friction, would be 60,000,000 years, but that the true age must be much greater, perhaps 500,000,000 to 1,000,000,000. This, though vague, is not inconsistent with other modes of measurement which have been adopted.

. A severe earthquake took place in Italy and Sicily on September 8th last, causing much damage to property and loss of life. In many places all the houses were destroyed, and in Stromboli, which was in eruption at the time, crevasses of a yard wide and 20 long opened. On January 31st, 1906, a violent earthquake occurred in Columbia, the shocks continuing for several days, and huge sea waves devastated the coast. The seismographs in the Isle of Wight showed that some great movement was taking place at 3.47 p.m. of our time, the maximum occurring about 34 minutes later, and the earthquake was felt by instruments, if not by the inhabitants, in all parts This makes us realise, perhaps, more than of the world. anything else, the enormous force of these greater earthquakes, which shake the whole earth. A connection has been established between this earthquake and shocks in the West Indies on February 16th, a similar sequence having happened in 1902.

Very severe earthquakes took place in Formosa on March 17th and April 14th. Though the actual loss of life was probably less, and the magnitude of the earthquake not greater, than those I have mentioned, the recent catastrophe at San Francisco has eclipsed them all in our minds. A great city, covering many square miles, first torn by violent shocks, and then burning in a way which we, in this country, have to go back to the Fire of London to parallel, can hardly be realised in these civilised days, but, the water mains being broken by the earthquake, there were no means of stopping the progress of the conflagration. This earthquake also, like most severe ones, was felt by instruments all over the world. It may be of interest to mention that a Milne seismograph was taken with the National Antarctic Expedition, which recorded 156 distinct earthquakes, 73 of

them coming from a new submarine earthquake region to the south-west of New Zealand. Some of these were noticed by the English instruments, but I am not aware that any of them were of sufficient magnitude to be personally felt by the Antarctic explorers.

In April and May, 1905, Vesuvius was increasingly active, and between May 25th and 27th there were violent explosions followed by streams of lava. The most violent eruption of Vesuvius since 1872 took place, however, in April, 1906, reaching its height on April 7th, when the sides of the cone subsided and the streams of lava, which had already broken out, greatly increased. Ashes fell in places a yard deep, and large blocks were also ejected from the crater, the greatest damage being sustained in parts to the north-east of the mountain, where many houses collapsed owing to the weight on their roofs.

The Rhymney Valley landslide, which has lately been brought to public notice, is known to have been in progress for the last 50 years, but its movement has been so slow that the Rhymney Railway, with a stone bridge over it, has only been carried about 10 feet in that period, and the bridge, though damaged, was only replaced by an iron one three years ago. The moving portion is a deposit, perhaps glacial, about 2,000 to 3,000 feet broad, and not more than 20 feet thick; but there have been smaller landslips in the district of a more rapid nature, which have done local damage. The fall of rock at Cheddar, on February 14th last, was greatly exaggerated, and is of very little importance. It is a matter for congratulation that a Royal Commission is to investigate generally the encroachment of the sea on our coasts, which is in some parts serious.

Superior coal of Eocene age has been found in the Phillippines, and will be worked by the Americans, and it is hoped that coal may exist in Cretaceous beds in British New Guinea. With regard to another form of carbon, I greatly regret that the great diamond found in 1905, weighing 1.37lb., has been cut into more saleable smaller ones, no millionaire having intervened to

preserve such an interesting object to the world. Some crystals of immense size, including one of smoky quartz, weighing 600lb., have lately been found in Texas, and, not being of such great value, will, I hope, be preserved intact in some museum. The value of gold obtained from Merionethshire in 1904 was $\pounds73.925$ —nearly four times that in 1903.

The recent expedition to Tibet has thrown some light on the geology of that country. Marine Tertiary beds occur north of the Sikkim border, and there is evidence of a former considerable extension of glaciers northward from the Himalayas. Granite near Lhasa is intrusive in Jurassic strata, and minerals and gems are scarce.

Our hon. member, Mr. Jukes Browne, confirms the theory of the derivation of clay-with-flints from Eocene strata, and not from the chalk, as hitherto believed.

A rich Cambrian fauna from China has been collected and described by the Washington Carnegie Institution.

In the British Museum (Natural History) one of the most valuable and interesting additions in the past year is the full-sized model of the gigantic dinosaur, about 85 feet in length, Diplodocus Carnegii, presented by Mr. Carnegie, whose public spirit has been so munificently shown both in this country and in America. The restorations of extinct monsters at the Crystal Palace of fifty years ago have served their purpose, and have to give way to the beautiful fossils and accurate restorations which are now such a feature of the American museums, and which have been chiefly obtained in the Upper Jurassic beds of Wyoming and Colorado. Triceratops, with an enormous horned skull nearly a third of its total length, is one of the more recent additions.

Valuable palæontological discoveries have been made in the Eocene beds of the Fayum province of Egypt, which have yielded mammalian fossils in abundance, throwing much light on the ancestry of the *Proboscidea*. The remains of fish and crocodiles have also been found in this area, which consists chiefly of desert, though part is cultivated by irrigation.



A new fossil fish (Myriacanthus paradoxus) has been lately discovered at Lyme Regis, of which the dorsal fin-spine alone was previously known.

ASTRONOMY.

The great event of the year from an astronomical point of view has undoubtedly been the total eclipse of the sun on August 30th. After all the elaborate and expensive preparations, involving journeys and the transport of delicate apparatus to distant parts of the world, often difficult to reach, and inhospitable when attained, disappointment was on this occasion the only result, in many instances, of this great undertaking for the purpose of a few minutes' observation.

At the two stations in Labrador, in parts of Spain, and elsewhere, clouds obscured the sun. At Guelma in Algeria, Torreblanca in Spain, Sfax in Tunis, at Assouan, Tripoli, and other stations, the observers were fortunate in obtaining a good view of the eclipse. The corona was well developed, and streamers (not all radial) up to a length of about twice the sun's diameter (in one case, at Guelma, stated to be three degrees), were seen.

Colour screens were successfully used in photographing the prominences, and new facts were elicited about the polarization of the corona. One of the most interesting photographic results was the record on the plate of three or four oval, ringformed, cloud-like caps about four to six minutes of arc above the large prominence on the east limb, indicating the eruptive nature. Similar appearances were seen in 1870, and described as smoke rings which were being shot up by the eruptive force. The darkness was not intense, the time by a watch being always visible. The shade-temperature fell ten degrees on the Spanish coast.

In Dorset the eclipse seems to have been well watched, and some photographs were exhibited at one of our meetings. The.

decrease in light and warmth was very marked, though only about three-quarters of the sun was covered. In Devonshire it was noticed that even fish observed the eclipse and apparently thought night was approaching, as they suddenly became ravenous.

The sun's parallax has been determined by two new methods—namely, the measurement of spectrographic lines, and observations of the asteroid Eros, the results being very near the generally accepted value of 8.8 seconds. It has been found that the shape of the sun varies to such an extent, that though the equatorial diameter is greatest at sunspot maximum, at sunspot minimum the reverse is the case, and the polar diameter is then longer than the equatorial one, the extreme difference between the two diameters amounting to half a second of arc.

There is little practical use for sundials at the present day, but one has just been invented which will tell the correct mean time. The shadow of a bead falls on the interior of a cylinder marked with suitable curves, and the gnomon of the old and inaccurate dials is dispensed with.

The discovery of Themis, a tenth satellite of Saturn, is announced. It is, however, too small to be seen with our present telescopes, but has been revealed by photography. It has a probable diameter of about 38 miles; an eccentric and much inclined orbit; and a period of 20.85 days. Some of the canals on Mars have been photographed, thus proving their reality, and it has also been found that one of the minor planets, Urda, shows considerable light variations.

The uncommon spectacle of a fine aurora was witnessed in many places in the South of England on November 15th last, which, had it not been for a nearly full moon, would have been an even more brilliant sight. The aurora was seen also in Nova Scotia, and at Vardö, in the extreme north of Norway. It was the most splendid seen for years. The greatest magnetic disturbance of the year occurred at Greenwich on that date. A second new star has appeared, but not to the naked eye, in

the constellation of Aquila, designated Nova Aquila, No. 2; and there is probably also one in Ophiuchus. It has been found that a star in the large Magellanic cloud has a large proper motion of 1.2 second in a year. This was discovered by the ingenious device of superposing a photographic plate on a glass positive of the same region taken some time before, which would show nothing which had not moved in the intermediate period. The plate showed about 300,000 stars! Professor Kapteyn finds that those stars whose proper motion has been determined, move in opposite directions in the line of the Milky Way, which suggests that they are rotating round a central axis.

From the fact that meteoric matter has been found at a depth of 500 feet below the surface of the large crater in Coon Mountain, Arizona, and for other reasons, it is concluded that this crater is the result of the impact of an immense meteorite, the fragments of which are well known as Cañon Diablo siderites.

A new and important observatory has been established on Mount Wilson, in South California, at a height of 6,000 feet, in an exceptionally clear and dry atmosphere. Besides other advantages, it will be well furnished with instruments, including a very powerful telescope.

An account of the geodetic survey in South Africa was laid before the British Association, the extreme accuracy of which is shown by the discrepancy in measurements of a base of 70,000 feet being only one in 1,500,000. More recently measurements have been made with great success with wires composed of invar, an alloy of steel and nickel which does not vary with the temperature. Greenwich time has been adopted as a standard by several countries, including North America, which divides itself into five zones, which are, respectively, four, five, six, seven, and eight hours slow on Greenwich. France is again considering the matter, and, it is hoped, may bring herself into uniformity with the greater part of Europe in this respect.

METEOROLOGY.

The rainfall of the British Isles during 1905 was distinctly below the average, whilst taking England alone it amounted to only 83 per cent. In an average year a fall of at least 20 inches occurs everywhere in this country; but in 1905 there were 7,500 square miles with less than this depth. The year 1905 has justified the theory of a cycle of one wet year followed by two dry ones. It remains to be seen whether 1906 will be a wet one, but the rain in January especially was excessive; since then there has not been much.

Meteorology is being extended into new parts of the world, and has lately been cared for by the Japanese in Manchuria and Corea by the establishment of numerous stations, those on the coast issuing weather predictions and storm warnings by means of flags. Notes of observations for eight years were found at Seoul, from which it appears that the mean annual rainfall is 35'4 inches, of which more than two-thirds falls in the three months of summer. One may form, perhaps, a better idea of the position of Seoul if one realises that its latitude is almost identical with that of San Francisco, Richmond (in Virginia), the Azores, Granada, Syracuse, and Athens.

A scheme has been put forward, under the auspices of the British Association, to lay before the Government the desirability of founding a Central Institution, which shall deal with the meteorology of the whole British Empire, but the matter is still under consideration.

It has been found from data furnished by 21 years that, as a rule, a dry autumn is followed by a good yield of wheat in the next year, each extra inch of autumnal rain corresponding to an average diminution of a bushel and a-quarter per acre in the succeeding year. It is, perhaps, the sowing that is affected.

At the recent International Navigation Congress at Milan one of the questions discussed was "The influence which the destruction of forests and the dessication of marshes has upon the régime and discharge of rivers," and much evidence was

adduced to show that where forests have been cut down brooks have disappeared, and small rivers become useless, for power purposes, from want of water, whilst in larger rivers flooding has become more frequent, though at other times navigation suffers for want of water. The serious results of the destruction of forests on the Black Mountain, near Toulouse, in the Kazan district of Russia, in Wisconsin, U.S.A., in the province of Messina, in Sicily, and elsewhere, and the good and bad effects of replanting, and subsequently cutting down, the fir trees on a mountain side in the Canton of Berne were given in full detail, and left little doubt of the connection between the cause and its disastrous results.

Investigations in France, Switzerland, Norway, Greenland, North America, Africa, and elsewhere show that glaciers are almost universally retreating, though they sometimes advance a little for a short period. Some have been observed since 1860.

Kites and balloons continue to be used for investigating the upper air with valuable results. On one occasion a height of 21,100 feet was attained, six kites being attached to each other, and a wire line of nearly 16,000 yards in length being used. The minimum temperature recorded was 13 degrees Fahr., the ground one being 41 degrees. The wind velocity at this height was 56 miles an hour, that on the earth's surface being 18. From kite investigations in the tropics there would appear to be three strata immediately above the surface, which vary in the direction of wind and other respects, the lowest being about 1,000 metres in height, and occupied by the trade wind.

ELECTRICITY.

A successful electrical exhibition was held at Olympia last autumn, and the public showed their interest in this comparatively newly-adapted form of power by largely patronising the exhibition. In England electric power distribution companies continue to be formed, and it is proposed to establish one in Huntingdonshire on a still larger scale, with overhead lines, should the sanction of Parliament be obtained.

The Metropolitan Railway, hitherto worked by steam, has in the last year been transformed into an electric railway, and other electrical improvements in connection with light and signals have been developed on railways. Amongst these should be mentioned the system of applying wireless telegraphy to trains in motion, by which communications can be made to the train from a station. Advantage is being taken of the Wireless Telegraph Act in this country, and a fair number of licences have been granted and messages transmitted under it.

There has been much development of electricity in other ways. such as new forms of lamps, but the only other process that I shall allude to is that of type-writing by telegraph, for which a new machine has lately been invented, which is now in use on several English lines, and is said to be an improvement on its predecessors, of which there have been more than one. machine is complicated, but acts by means of a tape, in which holes are first punched by a special arrangement of typewriter. Five holes are available, and a different arrangement, containing one or more of them, serves for each letter. The tape is then used to control the movements of a rod which presses against it as it moves along. When the rod passes through a hole it causes contact, and thereby transmits the message by producing a smilar perforation in a tape at the other end. The second tape thus punched is used as a guide in a special typewriter.

CHEMISTRY.

The constant association in Nature of certain elementary substances, such as silver and lead, together with the recent theory of the gradual production of helium out of radium, has suggested that other similar processes of transmutation are going on, but experiments on the subject are so delicate and



lengthy that as yet little is known. In one of these experiments it required no less than 15 tons of pitch-blende to produce three milligrams of radio-tellurium. Two experimenters have found that uranium, when freed from all trace of radium, would after a time contain a minute quantity, from which fact, and from other considerations, it is supposed that the uranium may be gradually turning into radium. The latter being of such an unstable nature that, according to calculations, only one-millionth part would remain at the end of 26,000 years, requires some means of replenishment. The actual existence of the subtle N-rays, discovered by M. Blondlot, is still questioned by many scientists, but experiments have been made which seem to show strong evidence that they are real and not imaginary.

The possibility of obtaining the nitrogen of the air by means of electricity, in such a form that it could be used as a fertilser, like the nitrate of soda exported from Chili, was demonstrated so far back as 1781 by Cavendish, but it is only recently that it has been produced as a commercial product by passing air through an electrical furnace, the power being derived from waterfalls in Norway. This will probably have considerable influence upon the wheat supply of the future, when the Chili beds are worked out in 50 years or less.

A most interesting lecture on diamonds was given by Sir William Crookes to the British Association at Kimberley, which he commenced with the ominous words to those who possess these costly gems, "I am justified in saying that, if the diamond problem is not actually solved, there is every probability that it shortly will be solved." Up to the present time, however, no diamond has been made of more than a millimetre in diameter, and most are microscopic. They have also a great tendency to fly to pieces, so that, on the whole, the danger of competition is not, so far, of importance. Two new methods have recently been discovered: one by the explosion of cordite in a shell, which produces enormous pressure and temperature; the other by the milder means of heating to a low red heat an alloy of lead and calcium, holding carbon in solution; but these methods also

lxxx.

produce only minute crystals. The lecturer alluded to the fact that diamonds had been found in the Canon Diablo meteorites, and to many other interesting points as to the origin and qualities of these stones.

Many other valuable chemical investigations and discoveries have recently been made, but before passing on I will only allude to the danger in which the indigo planting industry lies through the extensive production of the dye by chemical processes, and the greatly increased manufacture of artificial silk from collodion. This may, I expect, be easily distinguished from the real article by burning a few threads, substances of that nature being usually very inflammable, if not explosive.

Engineering.

Some of the chief engineering works completed during the year are the Victoria Falls bridge over the Zambesi, 600 feet long, the falls being about 380 feet in height, or nearly 2½ times that of Niagara, though the volume is far smaller. A bridge of 1,000 feet across the Mersey was opened, as well as the largest British graving dock, at Southampton.

The water of Niagara was so much lowered by the power companies that a dam has been built for the Victoria Park, in the shape of a huge column of concrete, arranged so as on completion to be upset into and across the river. A chain runs up the middle of the column to hold together the sections into which it is divided. The plan reminds one of that pursued by the beavers, which cut through trees at their base, so that they may fall across the river to make a dam. It is probable that legislation will intervene to prevent the wholesale destruction of the picturesque interest of these falls, much of the water of which has been already diverted.

The Panama Canal progresses, and opinions are divided as to the advantages of a sea-level canal, or of various schemes for canals with locks, some rising to a height of 130 feet. The cost



is one of the chief difficulties in the way of the former plan, but it is probable that it will be adopted. An imperfect weld in a tie-bar caused the collapse of a portion of the roof at Charing Cross station on December 5th, which was attended with an extraordinarily small loss of life considering the circumstances, whilst more recently we have to deplore in France the most fatal colliery accident which has ever taken place, resulting in the loss of 1,200 lives.

The Russo-Japanese war has had a far-reaching effect in modifying opinions on naval matters, and one of the first practical results is seen in the Dreadnought, a battleship of a new type lately launched, of 18,000 tons, carrying ten 12-inch guns, and propelled by turbines. These guns are capable of piercing 32 inches of wrought-iron or 14 inches of steel, at a distance of 3,000 yards, and weigh about 50 tons each.

The comparatively new turbine engines have been tried with great success in the Carmania, a large ship belonging to the Cunard line, in which they proved at least 16 per cent. more economical than the reciprocating engines in the sister ship. Trials in other ships have had similar results.

The recent invention of a submarine bell attached to a light-ship or buoy seems likely to be a useful means of calling attention to dangerous spots in the case of ships fitted with the corresponding sound-receiving apparatus. The bell can be heard at three to five miles distance, and its direction noted. The navigation of the air is making progress, and the Lebaudy airship has made numerous satisfactory trials. Lifting by means of kites has also been much developed.

The important question (especially to non-motorists) of the prevention of dust-raising by motor-cars has been the subject of numerous experiments, the most effective of which seems to be the preparation of the road with a heavy oil, which, properly applied, may prevent any dust for a whole season. It has also a good effect on the durability of the roads. The kind of tyre and shape of the car, and other details, are of importance.

lxxxii. PRESIDENT'S ADDRESS.

"A machine for uprooting trees" sounds rather like the revival of some gigantic animal of past ages, but such an appliance is in use in Belgium to pull up pines, instead of the ordinary method of felling them. The process costs 4d. each, but the poles are a foot longer, the roots are of some value, and replanting can be done immediately, instead of in three years, owing to there being no stumps for the pine-weevil to breed in.

Steps are being taken to bring about an international standardisation of screws. A steel ingot of 120 tons, cast at Manchester last February, was the largest ever made; whilst very interesting experiments have been carried out with iron and its alloys, showing that at liquid air temperatures, the hardness and resistance to tensile stress are immensely increased.

GEOGRAPHY.

The great work accomplished by the National Antarctic Expedition has been described in an interesting manner in a book lately published, written by Captain Scott. Inside the great ice-barrier lies a plateau of wide extent, nearly level, and about 9,000 feet high. Over this he journeyed for 200 miles without finding any change of feature. On one of his two long sledge journeys he reached the latitude of 82° 16' 33" through the greatest difficulties, and made many valuable observations. The inland ice between Cape Adare and Mount Longstaff, a distance of over 700 miles, is discharged by four immense glaciers, some of which are the largest in the world. An active volcano. Mount Erebus, in the midst of this scene of desolation, must indeed have been a wonderful sight to its first discoverers. A coal seam was found in very early rocks, but it was unfortunately only kin. in thickness, and the plant remains were not in a state to be identified. Birds were much observed, and a great deal of work done in collecting the lower forms of life below the ice. The existence of certain earthworms and





wingless insects in the Antarctic regions point to an ancient connection of New Zealand, South America, and Africa by a great Antarctic continent. This is strengthened by the evidence of fossil marsupials, which points to its having occurred at the end of the Secondary period.

Meanwhile the North Pole is not neglected, and the Peary expedition, which started in that direction last July, will take advantage of the power of communication offered by wireless telegraphy.

The results of Baron de Nordenskjöld's recent explorations in the Andes have been published, showing that he was the first white man to visit certain tribes, who, until a year or two ago, lived like people of the Stone Age. The Atsapuacas, in Bolivia, still retain most of their original customs.

An expedition under Mr. Stanley Gardiner has done much valuable work in the neighbourhood of the Seychelles, in surveying and marine and land zoology. The Seychelles Islands lie on a submerged bank with depths down to 40 fathoms, the sides of which descend very sharply to 2,000 fathoms. They are much cleared for cultivation, but possess many indigenous plants, amongst which the most interesting is, perhaps, the double cocoanut, which is not found elsewhere. Its palms are either male or female, the latter bearing two structurally distinct forms of fruit on the same tree, as shown by an examination of 300 specimens. Mr. Gardiner believes this case to be unique.

An account of a survey by the Nero has just been published, showing a record depth of almost six miles at a spot between the Midway Isles and Guan, which lies about 1,200 miles north of New Guinea.

Messrs. Barrett and Huntingdon are exploring the Tarim basin, to the north-west of Tibet, and studying the river systems and the ancient ruins which are found in the deserts of East Turkestan.

Floats are now used to study the direction and speed of ocean movements, and one which started from California was picked up in the Java Sea, after a journey of at least 11,350 miles.

ARCHÆOLOGY.

Owing to the meeting of the British Association in South Africa, the archæology of that region has, perhaps, been more brought forward lately than any other. The subject was treated of in detail by Dr. Haddon in his sectional address. He suggests that the Kattea, a race of black dwarfs dwelling in holes in the ground or rocks in the North Transvaal, may be the true aborigines south of the Zambesi. Little is known of them, and their language, even, is not yet understood; but they may, perhaps, be regarded as the most primitive race of all mankind. Other papers dealt with the totemism, musical instruments, language, artificial deformation, stone implements, pictorial art, and other subjects connected with the various tribes.

Vast numbers of ruins, including many of gold-workings, exist in Rhodesia, but it is not considered that they go back to more than 600 or 700 years. At one place, Dhlo-Dhlo, fragments of Nankin china were found below the intact cement floor of a hut. which could not have been imported there before the 16th century. The ancient inhabitants do not seem to have passed through a copper and bronze age as elsewhere, but to have changed, almost without a break, from stone to iron, and the use of the double bellows, an Indian implement, in smelting suggests that it was from there that they gained their knowledge of this metal. Great numbers of implements of Palæolithic form, of chalcedony, jasper, and agate, are found on the banks of the Zambesi, both above and below the falls, in positions which show that at the time of their deposition the river flowed 400 to 500 feet above its present level, representing a very long space of time.

The British Museum excavations at Ephesus have shown the existence of two earlier temples below the Croesus Temple, containing large numbers of votive offerings of the 7th and 8th centuries, B.C., of gold and silver, and blue Egyptian scarabs.

In Egypt a remarkable find has been made of a cell in the rock, lined with coloured relief sculptures, and containing a life-sized painted and gilded stone cow, the emblem of the goddess Hathor.
The shrine was dedicated to Thothmes III. by his son.

Excavations have also been carried on in Crete, on the site of Nineveh, and in Scandinavia, where portions of curved walls, accompanied by Neolithic implements, have been found below the peat. This reminds one of the ancient circular hut dwellings on Dartmoor. Nearer home, caves in Clare, Ireland, have been recently investigated, and various implements of chert, bone, and bronze found, including a beautifully-worked bronze buckle, as well as an ancient gold bracelet. Amongst the animal remains are those of a wild cat, which is pronounced to be an African species (Felis ocreata), and not that of Europe (F. catus). It is also considered that the English cave cats belonged to this species.

The rougher forms of so-called worked flints have always seemed open to a slight doubt as to their human origin, and an important light has been thrown upon this by the discovery by M. Boule that in the cement works of Mantes, in the process of washing the flints, chalk, and clay, there are produced by the violent motion of the water, and consequent knocking together of the flints, forms of the latter, which are indistinguishable from Eoliths. These are the crudest forms of supposed stone implements, with very little working, but they have been relied upon by some authorities to prove the existence of man in even Miocene times. The artificial products show the notch, the chipped edge, and the bulb of percussion, which are usually relied on as marks of human agency, and every characteristic of the Eolith.

The Vienna Museum has set the example of collecting phonographic records of dialects, savage languages and music, and has sent out expeditions for that purpose to various parts of the world. The British Museum has expressed its willingness to accept similar selected records of the voices of living men for the use of posterity only.

The great use anciently made of the heliacal rising of stars is still carried on by the natives of Borneo, who watch until they are able to see the Pleiades rise before the light of the sun hides them, and then commence their work of clearing the forest, the dry season being necessary for this undertaking. Similar points in connection with Stonehenge and other megalithic remains have been lately much elucidated by the investigations of Sir Norman Lockyer.

GENERAL.

Owing to the difficulties of classification, which will always remain a fertile source of discussion in all branches of Natural History, and from which even an address like the present is not free, I feel the necessity for a general or miscellaneous section. I should like, in the first place, to quote a few words from the address of the President of the British Association in South Africa for the benefit of those cynics amongst us who speak of our Club as if its chief object in life was the arrangement of large picnics. He says: "The hospitality which you are offering us is so lavish, and the journeys which you have organised are so extensive, that the cynical observer might be tempted to describe our meetings as the largest picnic on record. Although we intend to enjoy our picnic with all our hearts, yet I should like to tell the cynic, if he is here, that perhaps the most important object of these conferences is the opportunity they afford for personal intercourse between men of like minds who live at the remotest corners of the earth." All that I need do in applying these words to ourselves is to change the last word into "County of Dorset." If the cynic can propose any practicable plan for our meetings which will do more to spread a general interest in the subjects comprised in our title, I shall be only too glad to listen to what he has to say.

Our country is beginning to realise, in great measure through the example of other countries, notably Japan, that scientific knowledge is not merely an interesting amusement, but an important agent in the commercial and general welfare. This idea it is the endeavour of the British Science Guild, which was inaugurated last October, under high patronage, to impress upon the inhabitants of the British Empire.

Mainly through the munificent gift of £100,000 by Messrs. Wernher, Beit, and Co., a Royal College of Science is to be established at South Kensington, where the highest specialised instruction will be given, and the fullest equipment for the most advanced training and research provided in various branches of science, especially in its application to industry. Much has been lost to us through the want of scientific appreciation on the part of capitalists and others, as in the coal tar colour industries, which had their birth in a British invention of 50 years ago, but have practically gone to make an extensive manufacture for Germany. We can only hope, however, that the new college will give a great impulse to scientific training in this country. It is satisfactory that the advantages of such a training are felt by the Secretary of State for War in the case of our officers.

Besides this central scheme, Sheffield is to have a University; the University College of South Wales is in course of erection at Cardiff, which is also the town chosen to contain the future National Welsh Museum, the National Welsh Library being destined to be located at Aberystwith, and the New Museum and Laboratories of Zoology at Liverpool were opened last November. On the other hand, Oxford estimates her requirements at something more than half a million, as well as a large yearly increase of income, which there seems no present means of obtaining.

A Government inquiry was ordered recently to discover to what extent the high duty on pure alcohol had a depressing effect on certain trades in which that substance was employed, especially in regard to the anilime dye manufacture, which has been almost lost to this country, but the evidence did not prove this to be the chief cause. In many manufactures methylated spirit is equally as good as pure spirit, and the price is far lower, but in some the finished article cannot be well made unless the alcohol is pure. The question is still under consideration,



lxxxviii. PRESIDENT'S ADDRESS.

and may be looked upon as a battle between revenue and trade.

The birth rate in this country has been declining for some years, and is now 29.2 per 1,000 for 75 large towns.

In my address this year I have confined myself to general subjects, and have not attempted anything special.

I regret that in most cases I have been able to give but a cursory glance, but science is like a tree, the buds of which each year expand into shoots with fresh buds on them, so that one can but allude to a few of the most prominent expansions. I conclude by hoping that some of the discoveries in the next year may arise from the Dorset Field Club.





Gross-Legged Effigies in Dorset.

WITH ILLUSTRATIONS BY THE AUTHOR.

By SIDNEY HEATH.

AUTHOR'S NOTE.

To avoid constant repetitions and references the following are the principal works to which I am indebted for information concerning cross-legged effigies, their identification, and the costumes and armour of their period:—Hutchins's "History of Dorset," "Portraiture on Monumental Sculpture" (Albert Hartshorne), "The Hauberk of Chain Mail" (J. S. Waller), Boutell's "History of Arms and Armour," and a paper contributed to the Archæological Journal, Vol. XXIII., on "Cross-legged Effigies of Civilians," by Mr. M. H. Bloxham.

In a special measure would I thank Mr. Hartshorne for the valuable assistance he has given me, and Dr. Colley March, who most kindly read this paper in MS. form and placed at my disposal that vast store of antiquarian knowledge which is his.

is probable that no county in England can show more interesting remains of its former ecclesiastical grandeur than

the county of Dorset. The great monastic foundations (surpassed in number only by Yorkshire)—the Abbeys of Sherborne and Milton, the Minster of Wimborne, the exquisite fragments left of Cerne, Abbotsbury, Bindon, and many another famous edifice—point to a monkish activity and a deep religious fervour almost without parallel. That these churches and abbeys were at one time filled with statuary and sculpture is beyond question, although their exact number or quality will never be known; and all we have

to guide us in refurnishing these stately structures with monuments and brasses are the faint records of them mentioned by our old county historians. Hutchins mentions many of these vanished monuments, but those recorded form only a very small proportion of the great numbers which were broken up at the dissolution of the Priory Churches, or at the so-called "restoration" of others.

However deeply we may deplore the loss of these priceless treasures, we must be thankful for what is left, and when we consider the neglect, the vandalism, and the misdeeds of certain Puritan iconoclasts, it is less a matter of wonder that so much has vanished than that any should have survived.

From what remains to us in the county of Dorset alone it is quite apparent that an English school of sculpture of the highest excellence existed from the middle of the XIIth century to the end of the XVth century. The dawn of the XVIth century, however, saw a marked deterioration in monumental sculpture, and, except those that are known to have been the work of Flemish or Italian artists, the effigies of this period are coarse, heavy, and entirely lacking in the finer qualities of refinement

and the subtle rendering of character which we call art. The Reformation, with its great social and political upheaval, was not calculated to have a beneficial effect on English sculpture; but it is a most remarkable fact that, while sculpture in England declined beyond measure at this period, that of Italy, Spain, Germany, and France rose to its highest excellence, and this, notwithstanding that the pre-Reformation examples in England are, generally speaking, more than equal to anything to be found on the Continent.

It may be that the Court patronage, extended exclusively to foreign artists by the Tudor and Stuart Sovereigns, set a fashion which was followed by less exalted persons, with the result that the English sculptor was robbed of his means of obtaining a livelihood. Be this as it may, the English school of sculpture became but a faint semblance of its former self, and was not the only art that received its deathblow in the triumph of Puritanism.

In the study of these memorials it is, I think, the general tendency of the art displayed, its quality, its value as a mirror of its own time, and its beauty in the higher sense that are the main questions to be considered. It is fortunate, and a privilege for which we cannot be too grateful, that we are able to approach them in the congenial atmosphere of the sanctuaries wherein they lie—an atmosphere of serene contemplation, of reverence, of sympathetic warmth and receptiveness, at once necessary, nay, imperative, if the best that is in them is to be drawn to the surface.

It is a matter of some speculation as to how far the features of the effigies may be accepted as faithful portraits of the individuals they commemorate. The evolution of refinement in sculptured or any other form of portraiture can only be effected by a deep and subtle investigation of the laws of the human mind and the sources of its pain and pleasures in material objects, supplemented by a most studious collation and accumulation of the principles of proportion, and of the attributes of the human form. There was, and is, no other means of effecting beauty in the higher sense—no royal road to

it. That which is common to the whole of a given class is called their nature, and it is the business of artistic generalisation to discover, extract, and exhibit this common quality which pervades and permeates a certain class. The exaggeration of a general idea is *idealisation*; the exaggeration of an individual quality is *caricature*; and we can hardly sufficiently estimate the nicety of the generalisation displayed by the early sculptors, which enabled them to give us faithful representations of a class of men without either idealisation or caricature.

That individual portraiture was sometimes successfully carried out even in these early effigies is proved by many monuments, notably by that of the elder Longspée in Salisbury Cathedral, a famous Crusader, who is not shown cross-legged.

On the other hand, there is no doubt that the greater number of our cross-legged effigies are purely conventional likenesses, and, except in rare instances, genuine facial portraiture is not to be looked for upon effigies earlier than the middle of the XIIIth Mr. Albert Hartshorne says, in his "Schools of Monumental Sculpture," "In short, portraiture was attempted where circumstances were very favourable for its production, as in the cases of effigies made during lifetime, or, it may be presumed, from sketches, or possibly after the XIVth century from casts or careful personal directions given by cultivated members of conventual bodies. When such information did not exist, or could not be conveniently applied—as in the examples, for instance, of efficies made in the distant Isle of Purbeckour ancestors made the best of the matter, and contented themselves with routine figures, showing, if not absolutely the man himself, at least adequately, the armour, the vestments, or the habits in which he lived."

If I was pressed for an answer as to what underlying motive, what inner meaning, seems to be suggested by the expression of these early effigies, I should say militant energy, protection, challenge of some unseen foe, but not devotion. They represent fully-armed alert men, with every muscle stretched for attack or defence. Their era, that of or immediately following the

Crusades, was one of great unrest in England as elsewhere. The old feudal system was crumbling away; the country had been drained of its very necessities to furnish men for the Crusades, and bands of beggared and broken men were pillaging and plundering with impunity.

One cannot fail to notice with what appropriateness and singular felicity of expression the early sculptors composed the figures to the recumbent position, and although the custom of erecting monumental memorials with effigies became general only in the course of the XIIth century, yet in the earlier, as in the later, examples there is always this remarkable quality of composition and appropriate disposition of the limbs. The cross-legged attitude assumed by these effigies has long been a vexata quastio among archæologists and antiquaries, some asserting that it has a very deep and real symbolic meaning, others that it was a pure fad on the part of the sculptor. The old tradition that the cross-legged position was a sign or symbol that the persons thus fashioned had either fought in the wars of the Crusades, or had taken vows to do so, is, I think, quite exploded.

There are, of course, many cross-legged effigies of authentic Crusaders, but there are scores of cross-legged effigies and brasses to the memory of men who could not possibly have made a crusade, or who are definitely known not to have done so. The crusades commenced at the close of the XIIth century and ceased at the close of the XIIIth century, and yet in Cold Higham Church there is a cross-legged effigy to Sir John Pateshull, died 1350, just eighty years after the last crusade. The cross-legged effigies to such men as Brian Fitz-Alan at Bedall (d. 1302), John de Hastings at Abergavenny (d. 1313), and Alymer de Valence in Westminster Abbey are a few of the cross-legged effigies to the memory of men who are known not to have gone to the Holy Wars, and an analysis of the monumental effigies and brasses of any county in England would yield the same result.

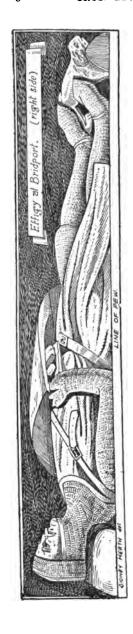
What, then, was the meaning, if any, of the cross-legged attitude as represented on sepulchral monuments and brasses?

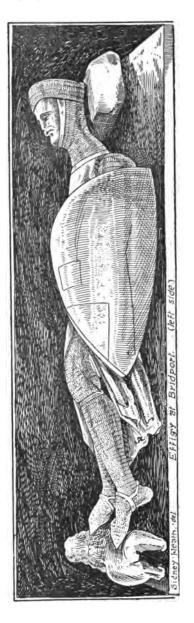
In the first place we must remember that, if it meant anything, it had a purely English significance, for no example of a cross-legged effigy has ever been found on the Continent. It is also evident that it did not apply exclusively to members of the male sex, for there are many effigies of ladies thus fashioned, notably at Cashel, in Ireland. Neither is it only found with effigies of men clad in military habits, for there are a large number of cross-legged effigies and brasses to the memory of civilians. If it had any special significance, then, it must have been one for which ladies, knights, and civilians could qualify themselves throughout many centuries, for the latest effigy whose lower limbs assume this attitude is that in Exeter Cathedral to Sir Peter Carew, in 1571.

Now, the only possible act in which all these persons could have taken part is that of making a pilgrimage, and in this connection it is a somewhat notable fact that on a few brasses the crossed feet of the knight seem to be actually walking on the animal. It is just possible, therefore, that the attitude commemorates a pilgrimage, not necessarily to the Holy Land, but to the shrine of some British or Continental saint. This solution would include every known cross-legged effigy, but in the absence of direct evidence this proposition must be one of conjecture only. The great difficulty seems to me to be the fact that this particular attitude is only found in England, and English men and women no more had a monopoly in the making of pilgrimages than in any other custom of mediæval days. Personally, I think it is much more probable that the cross-legged attitude was an artistic convention, and one which had no symbolic significance whatever. The flexibility of the chain mail was quickly regarded as a valuable artistic asset, and one which enabled the sculptors to fashion the figures in the natural and easy pose of real life, which gives to our early Gothic effigies that peculiar life-like appearance, as remarkable as it is unique. With the introduction of more solid defences the cross-legged attitude became more and more difficult if it was to be a faithful representation of the living man, until with the complete

panoply of plate armour it was generally abandoned for the straight or parallel position. Before we turn to the effigies of Dorset it may be as well to point out that, although actual construction of armour is shown on later effigies, there is no doubt that the representations of chain mail are nothing more or less than artistic conventions. To have constructed an actual hauberk of mail in stone would have been impossible, and would have seriously detracted from these effigies as works of art. Even a great authority like Meyrick mistakes conventional representations for actual construction, and it has been left to Mr. J. G. Waller, F.S.A., to throw fresh light on this important point and to prove conclusively that what is known as trelliced, ringed, mascled, single and double chain, are nothing more than conventional methods of representing the interlaced chain mail, which was the only form of chain mail in actual use, with the exception perhaps of banded mail. Mr. Waller supports his argument by many monuments and brasses, the only variation which he can accept being the double chain mail as shown on the effigy of a De Mauley, formerly in York Minster. It appears that the coif was of a pattern with which we are familiar, but the hauberk had a double set of rings, a smaller set, and a larger set enclosing it, all interlacing together and showing a considerable amount of skill in the making. It is possible, therefore, that "double mail" may have been one of the expedients for strengthening the defence against the attack, which belongs constantly to the history of arms and armour.

Banded mail has long been a crux antiquariorum, notwithstanding many attempts at its solution, and it is quite possible that this form may be also a conventional, and not a constructional, representation. The only positive thing about it is that it consists of bands and rings, but how applied is not known, although Mr. Waller puts forward a highly instructive solution based on a hauberk from Northern India, on which the chain mail is sewn between bands of leather. Another convention is that which represents the sleeve of the hauberk as being in one piece. The bending of the arm would be impossible if







the sleeve was tight over the elbow joint, as shown on all effigies; therefore, it seems clear that defences for the forearm were separate, though attachable. Separate defences for the forearm are in the Wallace Collection, and in many of our museums are typical hauberks, reaching to the knees and sleeved only to the elbows.

The cross-legged effigies in Dorset are found, as far as I have been able to trace them, at Dorchester, Bridport, Wareham, Piddletown, Trent, Wimborne, and Horton. There is also at Mappowder a diminutive cross-legged effigy under a small arched recess.

The effigies at Wareham, Bridport, Piddletown, Wimborne, and Horton have a general similarity of costume no less marked than that of the disposition of the limbs, although a detailed study reveals the little differences and pecularities that give to each of these figures a distinct and interesting individuality.

These effigies undoubtedly belong to about the same period, and, to avoid constant repetitions of the same descriptions, I have grouped them together, and, except perhaps for minute details, the one account of their arms and armour will be found to apply equally to them all. They belong to the latter half of the first of the four great periods into which English armour has been divided, and which is known as the "pure mail" period, the use of which extended in various fashions from the Conquest to about 1350, at which date more solid defences began to be added to the chain mail.

They are shown in the sleeved tunics of mail, which towards the middle of the XIIth century gave place to the plaited skirts formerly in vogue. This hauberk, or body armour, consisted of a hooded coif, which latter usually conforms to the shape of the head, but is sometimes flat-crowned and brought up to an

^{*} Pure mail does not necessarily mean *chain mail*, but is a conventional term for almost any kind of garment which was strengthened with studs, rings, or any kind of metal attached to the surface, and we have little knowledge of *chain mail* until the return of the knights from the crusades. (Boutell.)



angular finish at the sides, as we see on the Bridport and on one of the Wareham effigies. Over the coif a massive "heaume," or helm, was worn, either with or without a nasal, and sometimes with a movable "ventaille," or visor."

From the shoulders the hood extends in close-fitting sleeves to the hands, where it terminates in mittens, or splits up into stalls for the fingers and thumbs, thus forming a kind of glove. The lower limbs are also covered in mail, the portions above the knees being called "chaussons," and those below the knees "chausses." The feet usually have spurs with a single spike, and called "pryck," or spike spurs, which are fastened round the ankle by two straps.

It has already been stated that there was only one kind of mail in actual use—chain mail—which was made up of a series of interlaced rings riveted together. Ring mail and the other varieties (with the exception of banded mail, which is still an enigma) are simply conventional methods of representing chain mail on effigies. The only departures from the pure mail during this period were the lengthening of the tunic and the more or less general addition of small elbow guards and knee caps.

Over the hauberk is the long loose flowing surcoat, without sleeves, and gathered by a narrow belt round the waist, below which it is open. The surcoat is stated to have been used in the Crusades as a veil to protect the armour from the direct rays of the sun; but the earliest representation we have of the surcoat is, I think, on the seal of St. Louis, who led the last Crusade, and its general use was probably not adopted until some time after the Holy Wars.

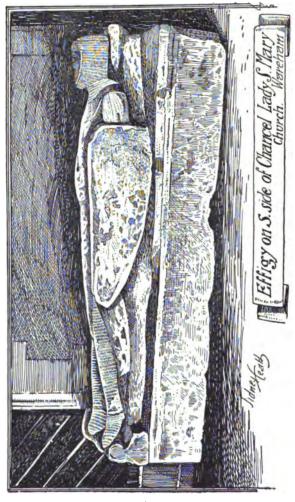
The hauberk had a stout leather lining, and was worn over a quilted tunic, called a haketon, or gambeson. The swords of this period have a great similarity, being long and straight, with recurved cross-guards and flat circular pomels. The shields, sometimes of the triangular or "heater" shape, are borne on the left arms and suspended from the right shoulders by straps. The effigies lie flat on the back with the heads but slightly raised by shallow cushions, and they recline upon coffin lids of stone or



Purbeck marble placed upon stone slabs, without ornament below.

The conventional animals supporting the feet of these effigies enabled the sculptors to terminate the long flowing lines of the limbs and surcoat with neatness and precision, thus overcoming one of the principal difficulties of the recumbent attitude. possible that these animals had an heraldic significance, the lion perhaps denoting courage and the dog faithfulness. animals are, with few exceptions, very elementary in form, and one sometimes finds the head and body of a dog, to which has been added the mane and tufted tail of a lion, making it difficult to say definitely which animal the artist intended to represent. The only solution which suggests itself in these instances is that, as few, if any, of these early sculptors could have studied the form and anatomy of a real lion, they took as a general model the familiar form of the dog, to which they added sundry lion-like attributes either from their own imagination or from the illuminated missals and heraldic devices of the period. think we may safely assume from the traces which remain that these effigies were originally coloured and gilded on the body and surcoats, in addition to the coats of arms fully emblazoned on the shields. These colours seem to have been very brilliant and of a thinness which allowed the grain of the stone to show clearly beneath.

The identification of these effigies is one of universal difficulty, owing to the obliteration of the heraldic insignia once emblazoned on the shields, surcoats, or jupons, so that the identities of these persons have become altogether obscured. The traces of heraldry which remain, the approximate date of armour, together with the contemporary history and local traditions, are all that the searcher of to-day has to rely on in his endeavour to fashion from these cold stones the once warm bodies of those who worshipped in the sanctuaries that now enshrine them. Amid difficulties of such magnitude one must be satisfied with a probable identification of these effigies since this, for the most part, can be a matter of conjecture only.

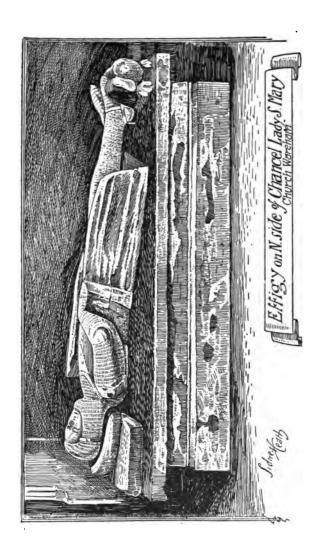


The second section

The effigies at Wareham are in the Church of Lady S. Mary, where they originally rested in a small side chapel, known as the Chapel of King Edward the Martyr, whose body is said to have been temporarily buried here before being removed to They now occupy the north and south sides of Shaftesbury. the chancel. Tradition associates these effigies with the family of Estoke, that on the north side to Sir Henry d'Estoke and that on the south side to Sir William d'Estoke. Hutchins mentions some arms on the shield of one of these effigies—"On the shield are the arms of Stoke, but whether of East Stoke or Barnston is uncertain." The fact that the adjoining parish is called East Stoke is interesting. The Rev. Selwyn Blackett, the present rector, tells me of a curious local tradition, which is, however, unsupported by any evidence, to the effect that Sir William lost his life while fighting on Wareham Bridge in consequence of a swarm of bees settling on his head.

The Bridport effigy is in the north transept of the Church of S. Mary, where it is entirely surrounded by pews. It has, unfortunately, been restored, with the consequence that, as an authority of contemporary costume and armour, it is of little value. It is said to represent a Chidiock, and faint traces of colour remain.

The effigy at Horton is in the Church of S. Wolfhilda, and is fashioned out of Purbeck marble. The figure is shown in the conventional treatment known as "ring" mail. On the left arm is a shield with an escutcheon of semée of cross-crosslets and a lion counter rampant, with a fleur-de-lis on the shoulder. Pulman, in his "Book of the Axe," identifies this effigy as that of Giles de Braose, or Brewes, whose name appears on the roll of the Battle of Boroughbridge among the men-at-arms and bannerets of Buckinghamshire, according to which the Sire Giles de Breouse, bore, "de azure crusaile d'or a un lion d'or, a un fluret de goules en le espaule de lion." Below each knee is a strap, or garter, similar to those on one of the Wareham effigies. The head rests on a cushion and the feet on a conventional animal.





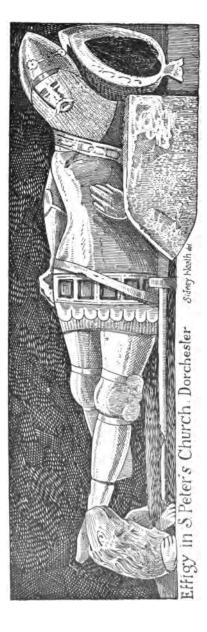
Under a small recessed arch at the east end of the south wall of the nave of Mappowder Church is a diminutive cross-legged effigy about 2ft. long. The little figure is in a hooded coif mail, with surcoat, sword, and shield. The hands are in the attitude of holding a heart against the breast.

This monument is popularly known as a "heart" shrine, which is stated by tradition to be the burial place of a heart, the body having been buried elsewhere. The workmanship is not of a high order; the details of the mail and costume are lacking in finish, and the figure has the appearance of having been roughly hewn out of a block of stone, probably by a local mason. Hutchins gives the following account of this effigy, Vol. II., p. 269:—"In a nich in the upper end of the south wall is a small effigy of a person in stone, scarce 2ft. long, lying on his back in armour, with a shield and sword, his hands elevated in a praying posture, his head on a cushion, and a dog supporting his feet, but no arms or inscription. It seems to have been some favourite infant of this (Coker) family, placed here by a fond mother. There is one of the same kind to the same family at Frampton."

The effigy at Piddletown rests on the floor in a corner of the Athelhampton Chapel, and the columns supporting another monument are placed on the slab of this effigy, making it impossible to obtain a view of it except from the end. There is no record or tradition of any kind to assist in the identification of this effigy.

The effigies at Dorchester and Trent are separated by many years from those just dealt with, and we jump at one bound from the end of the XIIIth to the end of the XIVth century, with no examples in the county of the gradual transition from the pure mail to the full panoply of plate armour, until we reach the final stage of such transition in these three effigies.

To follow in detail all the stages of this transitional period is impossible here, and involves a corresponding study of contemporary weapons both of offence and of defence. As the former became improved so the need for more complete and solid





protection became necessary until we reach the full panoply of plate armour, and it is most interesting to notice how from the earliest times there has been this continual struggle for supremacy between arms and armour until the invention of gunpowder gave the final victory, as far as military warfare is concerned, to the weapon. In naval warfare, however, the struggle is still going on. It is the old, old problem, altered not a whit in its essentials, because to-day the armour protects many men in floating fort, instead of one man in an iron suit.

These three effigies under consideration belong, as I have stated, to the final stage of the transition from mail to plate armour—a stage which is known as the last division of the four (or "Camail") periods into which English armour has been divided, and these effigies date from 1360-1405. In 1410 the full panoply of plate armour was in use.

We see here how the flexible chain mail has been almost entirely replaced by more solid defences, which give these figures a peculiarly wooden appearance, but one by no means devoid of artistic merit, although the globular breast plates give them a curiously feminine appearance. The lower limbs and arms are entirely cased in plate armour and the feet acutely pointed at the toes in laminated or tergulated sollerets, the latter consisting of a series of overlapping plates, evenly distributed, somewhat in the nature of tiles. The body is covered with a short hauberk, apparently sleeveless, which reaches to about the middle of the thigh. At the shoulders and elbows are laminated épaulières and elbow-guards which conform somewhat to the construction of the joints. Under the hauberk is a large globular breastplate, and over the hauberk is the jupon, a kind of surcoat fitting tightly to the shape and short enough to expose the skirt of the hauberk below. The jupons were usually made of some rich material and, as we see here, with an escalloped edge. are no arms emblazoned on the jupons of these effigies, although such was the usual custom at this period. The belt is remarkable for its splendour and for the method of adjusting it so that it appears immediately above the escalloped edge of the jupon,

which in its turn is a little higher than the hem of the hauberk. From the hip belt is suspended on the left side the long sword, with cross-guard and generally octagonal pomel, while on the right side is the misericorde, a short dagger. The hands are heavily gauntleted.

The basinets are acutely pointed and worn here without any "ventaille," or visor. The camail at this period was universal, and, although originally worn as a protection for the back of the neck only, has here developed into a close-fitting tippet, and we see clearly on one of the Dorchester effigies the method by which it was laced and secured to the basinet.* The great helms on which the heads of the effigies rest were worn over the basinets, and this is why these basinets have no visors, since that protection for the face was provided for on the great helm itself. This great helm was a massive and ponderous headgear, and slipped right over the basinet until it rested on the shoulders, and its weight was so great that it was only used in the thick of the mêlée or at the moment of a final charge. These two Dorchester effigies closely resemble each other, and are very good examples of their period, although they suffered somewhat when removed from the north aisle to their present restingplaces on window sills in the south aisle, where at any rate they should be safe from further damage.

They are said, with what seems to be very slight authority, to have been removed from the Priory when that building was demolished, and Hutchins connects them with a Geoffry Vann or Ann, but there is no reliable evidence as to whom they represent; but I trust that they will not again be pointed out to visitors to Dorchester as "our Crusaders." According to the late Mr. Henry Moule (in his "Dorchester Antiquities," p. 70), "Tradition says that one of the two good effigies in S. Peter's is Vann's. For one thing against this these effigies appear to be

^{*} The lace by which the camaile was attached to the basinet was until 1390 left uncovered, but from about that date and until the camaile ceased to be worn the mode of attachment was covered by an enriched band or plate, which formed part of the basinet. (Boutell.)



of the XIVth century, and some antiquarians believe them to be of two Chidiocks, of Chidiock, father and son, and that the said effigies were moved from the Franciscan chapel at its suppression."

In Trent Church, near Yeovil, is a cross-legged effigy supposed to commemorate one Roger Wyke. Trent was fomerly in Somerset, and the following extract is from Mr. John Batten's paper on "Trent" in the Proceedings of the *Somerset Archæological Society:—

"Under the recessed arches in the north wall of this chapel are two stone effigies, which Collinson erroneously attributes to the Gerrard family. The western effigy represents a man in plate armour of the period of Edward III. He wears on his head a conical bascinet with a camail attached, and he rests on his tilting helmet, the crest of which is defaced; on the elbows and knees are strapped elbow pieces and knee caps; the legs are cased in greaves; the feet, girt with heavy spurs, rest on a dog Attached to the girdle is his great sword on the left side and a short dagger on the right. There is no shield. hands are raised on his breast in prayer. The face is exposed with a moustache on the upper lip; signs of colouring are slightly apparent on the surface. There is no record or tradition assisting us to identify this figure, and I gave up the case as hopeless until a second examination. Then, on looking closely at the tilting helmet, I discovered that, although only a fragment of the crest remained, it was certainly the body of a duck or goose. Now the arms of Wyke are a chevron between three barnacles, or solan geese, close, and the effigy is, I venture to suggest, that of Roger Wyke, the first husband of Joan Chasteleyn, owner of one-third of the manor, who died between 36 Edward III. and I. Henry IV."

The other effigy in this church is curious, being draped in a close tunic, with a belt and sword, and Mr. Batten suggests that it may be that of a son of Roger and Joan Wyke.

^{*} Vol. XX., Pt. 2, pp. 133-4.

The number of cross-legged and other effigies which vanished with the suppression of the priory churches, or at the so-called restoration of others, will probably never be known, so completely wiped out of existence were the former that in many cases not even the sites on which they stood are definitely known. I have only succeeded in tracing records of two cross-legged effigies which have vanished, both being mentioned by Hutchins, but no fragment of either can be discovered. The account by Hutchins of one of these vanished effigies, which was in Milton Abbey, is very interesting:—

*"In the south-west corner (of the south aisle), under this window, is the greatest piece of antiquity in the church (Milton Abbey). It is the figure of a man in complete armour, crosslegged, and a shield on his left arm, on which is an obscure cross. He may have been a Crusader, and buried here before the church was burnt; and, indeed, the figure is much decayed. Statues cross-legged were not always of knight templars, but persons who had made a crusade to the Holy Land or vowed to do so. The first crusade began 1096, and in 1291 the Sultan of Egypt put an end to them by the conquest of Palestine.

"Whom it represents is very hard to determine. We may be a little assisted in our conjecture by a MS. account of Milton Abbas in the Cotton Library, Julius, F. VI., 115, in a few leaves entitled "Collections about Several Towns in Dorsetshire," by an anonymous author, 1579, who says 'William the Conqueror took away part of the lands of the Abbey and gave them to Glaston-bury, and by the medyation of a barron of great honour replenished it again with monks, thirteen to the dozen, for as they wanted of their lands, even so of their number. . . . The name of the barron was called . . . and beryth Sa, a cross humette botony flowrte O, in which are five escallops of the first; and lyeth cross-legged in the south aisle and wall.' These arms," continues Hutchins, "are those of the Latimers, though the escallops are a difference of a younger branch. One

^{*} Hutchins, 2nd Ed., Vol. II., p. 446.

of this family might be a benefactor, or do some eminent service to the Abbey, and be buried here. It is observable that these very arms are still in the Abbey hall."

Traces of these Latimers are not uncommon in the records of the county, and branches of them held the Manors of Winterborne Whitchurch, Woodford-Belet, and Dewlish; and one, Nicholas Latimer, held a knight-fee jointly with John Fauntleroy from the Bishop of Sherborne.

The other effigy referred to was in Frampton Church, and it may have disappeared when the chancel was rebuilt in 1747-8. Hutchins says "In a small arch in the wall is a little image, much defaced, lying on its back, which is, perhaps, a memorial of William Coker . . . there being a similar image at Mappowder." From this statement regarding the similarity of this image to the one at Mappowder we may fairly assume this figure at Frampton to have been cross-legged.



I cannot conclude without a few words regarding so-called "restoration," which has been attempted on some of the effigies in the county, needless to say, with disastrous results. I take it, and members of this Society will assuredly agree with me, that these and other monumental effigies possess many qualities of peculiar and unique importance. They are (or were) faithful representations of contemporary costume, giving in regard both to detail and general appearance the precise habits worn by certain persons at certain fixed periods of our history. In all cases we may safely assume that they depict the arms and armour that were in use at the time in which each one of them was executed, and they were wrought either during the lifetime of the persons they commemorate or immediately following their decease. The sculptor, even if he did not work from the actual suit of armour (though in all probability he did), was perfectly familiar with the details of construction and the method of wearing what he was fashioning in stone, alabaster, or marble. One might as well expect a modern bricklayer to rebuild the Roman wall at Dorchester as think that a local mason could re-cut the beautiful interlinked mail, of which he knows neither the use nor the construction. If those who have charge of these relics would only realise their extraordinary value, they would see that these stupid and pitiful attempts at "restoration" not only ruins the entire character of the mediæval work, but renders them practically valueless as reliable contemporary records, and are, in fact, nothing less than wilful mutilations. Of far more value are the fragments, as they left the hands of those who gave them shape, than a retouched complete figure, of which no single detail can be safely accepted as a certain authority for contemporary costume, arms, or armour.

Since these notes were written three more cross-legged effigies have come to my notice. The most important of these is that of a civilian in Trent Church. This is stated by Mr. Batten to be probably of a son of Roger Wyke, whose effigy has already been described, but this figure is of much earlier date than that of Sir Roger. It is an extremely rare form of effigy representing



a franklin, i.e., a civilian who was allowed to carry a sword, and there are only one or two other effigies of this character in the country. The other two cross-legged effigies not described in the paper are of the usual type, one being in the Church of Wimborne St. Giles, and said to represent Sir John de Plecy (d. 1313), the other at Stoke Gaylard, where the figure in Hamhill stone is stated to be of Sir Ingelramus de Waleys. These three effigies will be fully described and illustrated in the forthcoming volume of these Proceedings, when illustrations will also appear of those at Horton, Piddletown, Wimborne Minster, and Trent, together with any other information and records which may come to light on the subject.





Old Dorset Hongs.

By Rev. HERBERT PENTIN, M.A., F.S.A. (Ed.).

(Read Feb. 21st, 1905.)

THE S

wrote to me a short while since to ask if the Dorset Field Club would undertake to collect the old folk-songs of Dorset. I replied that I could not answer on behalf of the Club; but that, as a private individual, I would collect all such songs and rhymes which I came across in my own parish and neighbourhood and bring them before the Club, with the hope that interest might be stirred up in the

subject and other collections made.

Of course, we cannot shut our eyes to the fact that the old traditional songs are fast dying out. Boys educated at a National School think it almost beneath their dignity to sing the ungrammatical, unrhythmical, and unpoetical songs in which their fathers and forefathers delighted. They do not know that the bad grammar, the uneven rhythm, and the poor rhyme often mark the most ancient songs—songs composed, not infrequently, by villagers themselves and corrupted as the years have

past away: old-time roystering ale-house songs with their nonsense-choruses: songs sung by the wandering minstrels of days gone by: songs from the old ballad-sheets of the pedlars. And yet I notice that these same boys, when they sing in public, repeat the title of their songs at their conclusion, thus unconsciously keeping up a custom started by the old ballad-singers of long ago.

Folk-songs can be arranged into at least five classes:— Ecclesiastical, Political, Agricultural, Nautical, and General. But it is very difficult to limit such songs to one particular county. Indeed, it would be almost truer to say that no songs exclusive to any one county exist. Let us, however, be content with listening to some of the versions of old songs which are sung in Dorset, whether they are of Dorset origin or not.

I. And first of all we will take ECCLESIASTICAL songs, as these are usually the most ancient. They generally contain allusions to Church matters and customs, legends of saints, and the like. And Dorset possesses two versions of one of the oldest of such songs—a song about which many pamphlets and papers have been written by antiquaries. Its title is "The Twelve Apostles," and it is sung by two persons.

THE TWELVE APOSTLES.

Come, I will sing to you.

What will you sing to me?

I will sing you one oh!

What may your one oh be?

One and one is all alone, and ever more shall be so.

Come, I will sing to you.

What will you sing to me?

I will sing you two oh!

What may your two oh be?

Two of them are lily-white babes, clothed all in green oh!

One and one is all alone, and evermore shall be so.

Come, I will sing to you.

What will you sing to me?

I will sing you three oh!

What may your three oh be?

Three of them are thrivers,

Two of them are lily-white babes, clothèd all in green oh!

One and one is all alone, and evermore shall be so.

These three verses indicate the plan of the song, each new number being followed by the whole of those that have gone before, and are sung by both people. The other numbers are as follows:—

Four are the Gospel preachers.
Five are the flamboys all in a row.
Six are the six bold waiters.
Seven are the seven stars in the sky.
Eight are the Gabriel angels.
Nine and nine of the brightest shine;
Ten are the Ten Commandments.
Eleven and eleven went to heaven.
Twelve are the twelve Apostles.

For this version I am indebted to the Rev. W. Miles Barnes.

The other version is known as "Green Grow the Rushes, oh!" and it is also sung by two persons.

GREEN GROW THE RUSHES, OH!

I'll sing you one oh!

Green grow the rushes, oh!

What is your one oh?

One and one is all alone, and evermore shall be so.

I'll sing you two, oh!
Green grow the rushes, oh!
What is your two, oh?
Two, two for the lily-white boys, clothed all in green, oh!
One and one is all alone, and evermore shall be so.

I'll sing you three, oh!

Green grow the rushes, oh!

What is your three, oh?

Three, three for the rivals;

Two, two for the lily-white boys, clothed all in green, oh!

One and one is all alone, and evermore shall be so.

The same plan is continued throughout the song. The other numbers are as follows:—

Four for the Gospel-makers.

Five for the symbol at your door.

Six for the six proud walkers.

Seven for the seven stars in the sky.

Eight for the eight bold rainers (or rangers).

Nine for the nine bright shiners.

Ten for the Ten Commandments.

Eleven for the eleven that went up to heaven.

Twelve for the twelve Apostles.

The meaning of some of the allusions is very difficult to The "one and one all alone" probably refers to determine. God; "the two lily-white babes" may allude to Christ and St. John the Baptist. "Three of them are thrivers" is supposed to refer to the three wise men from the East, in which case "thrivers" is a corruption of "wisers." "The four Gospelmakers" are the four Evangelists. "Five for the symbol at your door" may refer to the sign of the pentacle or pentagram, which was very commonly inscribed on the threshold to keep away the evil one. "The six bold waiters" are usually identified with the six water pots used in the miracle at Cana of Galilee. "The seven stars in the sky" are, of course, the group in Ursa Major, usually called "Charles' Wain." "The eight Gabriel angels" are supposed to refer to archangels; but why the number eight is associated with archangels is not known. The phrase "the nine bright shiners" remains, more or less, a puzzle. Ten and twelve need no explanation. "The eleven that went up to heaven" are the eleven Apostles, Judas Iscariot being missing.

The whole subject is fairly fully discussed in Broadwood and Maitland's *English County Songs*, to which book I am indebted for some of the matter contained in this paper.

II. POLITICAL FOLK-SONGS.—Some of these take us back for hundreds of years. Songs exist which refer to the Civil Wars, others to Tudor events; but ballad-squibs against Oliver Cromwell and Charles II. are the most common. I do not know of any such songs which are still sung in Dorset; but probably there are many awaiting search.

III. AGRICULTURAL FOLK - SONGS.—Under this heading come the songs of shepherds, carters, and ploughboys; songs relating to fairs; harvest feast songs sung at the old harvest homes; and many others pertaining to pastoral life. Dorset should be rich in such old songs. Probably it is, but a collection needs to be made. Most of us, doubtless, have heard "Turmut-hoeing." It is often sung in this county, but in many other counties as well.

TURMUT-HOEING.

'Twas on a jolly summer's morn, the twenty-first of May,
Giles Scroggins took his turmut hoe, with which he trudged
away;

For some delights in haymakin', and some they fancies mowin', But of all the trades as I like best, give I the turmut-hoeing.

Chorus.

For the fly, the fly, the fly be on the turmut.

And it's all my eye for we to try to keep fly off the turmut.

Now the next place as I went to work, it were at Farmer Tower's,

He vowed and sweared and then declared, I were a first-rate hoer. Now the next place as I went to work, I took it by the job, But if I'd ha' knowed it a little afore, I'd sooner been in quod.

Chorus.

When I was over at yonder farm, they sent for I a'-mowin',
But I sent word back I'd sooner have the sack than lose my
turmut-hoeing.

Now all you jolly farming lads as bides at home so warm, I now concludes my ditty with wishing you no harm.

Chorus.

IV. NAUTICAL FOLK-SONGS.—As Dorset possesses a seacoast, it is more than likely that there are many old sea songs in the county needing to be sought out. Here is one, which comes from Buckland Newton.

THE CROCODILE.

Now listen, you landsmen, unto me, to tell you the truth I'm bound,

What happened to me by going to sea, and the wonders that I found:

Shipwrecked I was once off Perouse and cast upon the shore, So then I did resolve to roam, the country to explore.

Chorus.

To my rit fal lal li bollem tit! to my rit fal lal li dee! To my rit fal lal li bollem tit! to my rit fal lal li dee!

'Twas far I had not scouted out when close alongside the ocean I saw something move which at first I thought was all the world in motion;

But steering up close alongside I found 'twas a crocodile, And from his nose to the tip of his tail he measured five hundred mile.

Chorus.

'Twas a crocodile, I plainly could see he was not of a common race,

For I was obliged to climb a high tree before I could see his face;

And when he lifted up his jaw (though perhaps you may think 'tis a lie)

He reached above the clouds for miles three score, and almost touched the sky.

Chorus.

While up aloft the wind was high, it blew a gale from the south, I lost my hold and away did fly right into the crocodile's mouth. He quickly closed his jaws on me, and thought he'd got a victim, But I ran down his throat, d'ye see? and that's the way I tricked him.

Chorus.

I travelled on for a month or two, till I got into his maw, Where I found of rum-kegs not a few, and a thousand fat bullocks in store.

Of life I banished all my care, for of grub I was not stinted,

And in this crocodile I lived ten years and very well contented.

Chorus.

This crocodile being very old, one day, alas! he died. He was ten long years a-getting cold, he was so long and wide. His skin was eight miles thick, I'm sure, or very near about, For I was full ten years or more a-cutting my way out.

Chorus.

And now I am once more got on earth I've vowed no more to roam.

In a ship that passed I got a berth, and now I'm safe at home.

And if my story you should doubt, should you ever travel the

Nile,

It's ten to one you'll find the shell of the wonderful crocodile.

Chorus.

V. General Folk-Songs.—Here are ten Dorset specimens, mostly "love-songs":—

THE PRICKLY BUSH.

- "Just bret still and tarry for awhile,

 Methinks I see my father dear coming over yonder stile.

 Oh, father dear, have you silver or gold to set my body free,

 For to keep my body from the cafe cold ground, and my neck

 from the gallows' tree?"
- "Oh, no, I have no silver or gold to set thy body free;
 But I am come for to see you hung, and your neck to the
 gallows' tree."

Chorus.

"Oh, the prickly bush: it pricks my heart full sore.

If ever I get out of the prickly bush, I'll never get in any more."

The above verse is repeated four times more with the successive substitutions of "mother," "sister," "brother," and "true love" for "father"; but in the case of the "true love" she replies:—

"Oh, yes, I have both silver and gold to set thy body free;
I am not come for to see you hung, nor your neck to the gallows' tree."

Chorus.

"Oh, the prickly bush: it pricked my heart full sore.

But, now I'm out of the prickly bush, I'll never get in any more."

This is a Dorset version of this well-known song. Somerset and Buckinghamshire and other counties have their own versions. "Bret" and "cafe" are two curious words.

THE KING'S FIRST COURSE.

I went unto the King's first course,
How I did knock and ring!
And the very very first that answered me
Was the high and lofty King.

Chorus.

Ri fal de dal de diddle di de ri fal de dal di de.

- "What do you want of me, fair maid?
 What do you want of me?"
- "There is a man in your first course
 That has a-robbed me."

Chorus.

- "What has he robbed you of, fair maid?"
 The King he said to me.
- "Has he robbed you of any of your houses or land?

 Or of any of your gold?" cried he.

Chorus.

- "He has not robbed me of houses or land, Or any of my gold," cried she,
- "But the finest flower that my garden grows, Of that he has robbed me."

Chorus.

- "What will you know him by, my fair maid? What will you know him by?"
- "I will know him by the cape of his coat
 And the winking of his eye."

Chorus.

He called his soldiers by his side,
By one, by two, by three.

Sweet William used to be the very very first,
But the last to come down was he.

Chorus

"I'll give you houses, I'll give you land,
I'll give you gold," cried he,

"If you will but fancy some other young man And will not fancy me."

Chorus.

- "I don't want your houses, I don't want your land, Nor any of your gold," cried she;
- "But all I want, and all I'll have,"
 Is thy sweet and whole bodee."

Chorus.

So the very first town that we went through
We bought the gay gold ring;
And the very next town that we went through
We set the bells to ring.

Chorus.

THE LOST LADY.

'Twas down in the valley this damsel did dwell; She lived with her uncle, as all know-for well. 'Twas down in the valley, where violets were gay, Three gipsies betrayed her and stole her away.

Long time she'd been missing and could not be found; Her uncle he searched the country around. He came to her trusty (i.e., trustee), between hope and fear; The trusty made answer "She has not been here." The trusty spoke up:—"Her courage was bold; I fear she's been lost for the sake of her gold. We'll have life for life, sir," the trusty did say; "We'll send you to prison and there let you stay."

He travelled through England, through France, and through Spain.

(He ventured his life on the watery main.)
He came to a house, where he lodged for a night,
And in that same house was his own heart's delight.

She saw him, she knew him, she flew to his arms, She told him her grief while engaged in her charms.

- "Why did you disbine me, my dearest?" cried he.
- "Three gipsies betrayed me and stole me away."
- "Your uncle's in England, in prison does lie,
 And for your sweet sake he's condemnèd to die."
- "O, take me to England, my dearest," she cried;
- "One thousand I'll give you, and will be your bride."

When she came to old England her uncle to see, The cart it was under the high gallows' tree.

- "O pardon, O pardon, O pardon, I crave."
- "See, see, I'm alive your sweet life for to save."

And straight from the gallows they led him away; The bells they did ring, and the music did play, Each house in the valley with mirth did abound, As soon as they heard the lost lady was found.

This Dorset version is evidently a corrupt form. Perhaps, too, some verses are missing.

I'M A MAN THAT'S DONE WRONG TO MY PARENTS.

I'm a man that's in trouble and sorrow,
That once was light-hearted and gay;
Not a coin in this world can I borrow,
Since my own I have squandered away.
I once wronged my father and mother,
Till they turned me out from their door,
To beg, starve, or die, in the gutter to lie,
And ne'er enter their dwelling no more.

Chorus.

I'm a man that's done wrong to my parents,
And daily I wander about,
To earn a small mite for my lodging at night.
God help me, for now I'm cast out!

Then my father will say when he meets me,
"You beggar, you still are at large,
And mind, sir, that you don't come near me,
Or by heaven I will give you in charge."
My mother, poor thing's broken-hearted;
To meet me she ofttimes will try,
For to give me a crown with her head hanging down
And a tear rolling out of her eye.

Chorus.

I'd a sister that married a squire,
She'll ne'er look nor speak unto me,
Because in this world she's much higher,
And rides in her carriage so free.
Then the girl that I once loved so dearly
Is dying broken-hearted, they say,
And there on her bed she is lying near dead,
And now for her outcast doth pray.

Chorus.

Kind friends, now from me take a warning
From what I have just said to you,
And I hope in my dress you won't scorn me,
For you don't know what you may come to;
And I try to be honest and upright,
And do all the good that I can;
And I try all I know to get on in this world,
And prove to my friends I'm a man.

Chorus.

This song, which is credited with a Dorset origin, is not infrequently sung by tramps. It was heard recently in the streets of Weymouth.

THE PUNCH-BOWL.

O come listen awhile and I'll sing you a song
In the praise of good brandy and Jamaica get rum;
Strong beer and good cider through England doth run;
Sweet orange and lemons from Portugal come.

Chorus.

Give me the punch ladle, I'll fathom the bowl; Give me the punch ladle, I'll fathom the bowl, I'll fathom the bowl; Give me the punch ladle, I'll fathom the bowl.

My wife she'll come in, and will sit at her ease; She'll pay what she'll call for, and drink what she please; She'll drink till she's black in the face as a coal. Give me the punch ladle, I'll fathom the bowl; Give me the punch ladle, I'll fathom the bowl, &c.

My father is dead, and he lies in the seas; What matter of that if he lies at his ease? A clear crystal fountain through England doth roll. Give me the punch ladle, I'll fathom the bowl, &c.



SALLY IS THE GIRL FOR ME.

Last week I was twenty-one;
My master set me free,
And now I've money plenty,
I'm just going to have a spree.

Chorus.

For she has got such winning ways

To spend her money free,

And here's good liquor, come and drink.

Oh, Sally is the girl for me.

Her waist, that was so slender, Her ankle was so small; If 'twasn't for her heel She'd have no foot at all.

Chorus.

If all the girls in our town
Was melted into one,
I'd marry them all if I'd think fit,
Or else I'd let them run.

Chorus.

To see her on a Sunday
As through the streets she'd walk
You'd think it was Victoria
Just landed in New York.

Chorus.

For this song and "The Punch-Bowl" I am indebted to the Rev. E. Capel-Cure, Rector of Stour Provost, who obtained them from an aged parishioner. Versions of "The Punch-Bowl" exist in other parts of England. "Sally is the Girl for me" is evidently a more modern song, although the allusion to "Victoria" need not necessarily determine its date. That may be a name substituted to bring the song "up-to-date."

SARY SIKES.

To me, said mother t'other day,
"Why, Gyles, you seem to pine away!"
"Yes, mother, as I grows old I grant
I feel as 'ow there's summat I want.
There's Sary Sikes, the girl I likes,
Of her I'm thinking all my life;
She looks so sweet, and is so meek.
How fat I should get if I had her for wife!"

Chorus.

Tooral, looral, looral, &c.

- "Lord, love the boy," my mother said,
- "Why don't 'e go and court the maid?
 For every Jack there is a Jill."
- "So there, mother, then so I will."
 Myself I drest in all my best,
 A nosegay sweet in my button-hole hung,
 I saddled my hos, and jumped across,
 And as I cantered along I sung.

Chorus.

I soon got up to Farmer Sikes'.

I hitched my hos, and in I hikes.

All were abroad, so quite at ease

I helped myself to bread and cheese.

I drank some beer, and then did steer

To look for Sary (my heart in a flutter),

When in the dairy, like a fairy,

There was my Sary a churning of butter.

Chorus.

- "Lor, Gyles," said she, "why who'd a-thought
 Of seeing thee: Why, what has brought
 Thee here to-day?" Said I "Of course
 I was brought hither by my horse.
 O, Sary Sikes, 'tis you I likes;
 Yes, Sary, you're my only joy."
 She looked so coy and said "O, fie.
 What is it you want, you foolish boy?"

 Chorus.
- "Why, Sary, I wants to fix in life, And you I wish to be my wife."
- "Lor, Gyles, you don't mean that, I know."
- "Yes, Sary, 'pon my soul I do."
 Then kiss, consent, without any fuss,
 Without any fuss, with her apron thus,
 She wiped her mouth and gave me a buss.

(There is a line missing here.)
Chorus.

Then off we went a-squeezin' hands
To tell the parson about the banns.
When we came back we did find means
To make our dinner off bacon and greens.
We're married now, and I somehow
Am only happy with my wife;
I love her and press her, and cry "God bless her."
I was never so happy all the days of my life.

Chorus.

ROBEN'S COORTEN.

As I be thee mother, and thou beëst me zon,
Coom, listen to pëarant's advice—
Put on thee best clothes and thee fine yaller hose,
And goo out and zeek thee a wife, thee must.
Aye, thee must, that thee must;
Thee must goo out and zeek thee a wife, thee must.

Then Roben put on his very best clothes,
Which were nayther ragged nor torn,
His best Zunday clothes, and his fine yaller hose,
And he looked like a gen'leman born, er' did.
A'a, er' did, that er' did,
Er' looked like a gen'leman born, er' did.

As Roben were walken along th' roäd, Not minden the t'other fine folk, He happened to kiss th' wife of a priest, An' she had 'en clapped into th' stocks, she did. A'a she did, that she did, She had 'en clapped into th' stocks, she did.

The next one that Roben wer' smitten to Wer' th' butcher's fat därter called Grëace. He hadn't a-zaid 24 words or more, When she hit 'en a slap in th' fëace, she did. A'a, she did, that she did, She hit 'en a slap in th' fëace, she did.

O! öoman; O! öoman, thee sure must be mad To bëate such a gallant as I. Th' blood from my nose ha' spoiled by best clothes And I never 'll get me a wife, I wunt. Nay, I wunt, that I wunt, I never 'll zeek me a wife, I wunt.

If these be the way I goo zeek me a wife, I'll never goo zeek me another,
But single I'll bide all the days o' me life,
And I'll goo hwome to my mother, I 'ool.
A'a, I 'ool, that I 'ool,
I'll goo hwome to my mother, I 'ool.

When she zaw 'en a-coomèn along th' road Her heart wur for yoother's quite glad; She called 'en her bwoy, her darlèn, her jwoy. Why, Roben, how quickly thou'rt wed, thou art. A'a thou art, that thou art. Why, Roben, how quickly thou'rt wed, thou art.

Now, mother, I tell 'ee 'tis noo zuch a thing, I wur never zoe shëamed in my life; I have spoiled my best clothes and my fine yaller hose, An' I'll never goo zeek me a wife, I wunt. Nay, I wunt, that I wunt, I'll never goo zeek me a wife, I wunt.

This song was probably written about the time of the foundation of the Blue Coat School (1552), when the "yaller hose" worn by the boys was in full fashion.

ANOTHER COURTING SONG.

- He. I will give you a silken gownd,
 Nine yards long, to trail on the ground,
 If you'll be my love and my only dear,
 And go walking with me anywhere.
- She. I'll not accept of a silken gownd,
 Nine yards long, to trail on the ground;
 I'll not be your love and your only dear,
 And go walking with you anywhere.
- He. I'll give you the keys of the little chest And all within that is now possesst, If you'll be my love and my only dear, And go walking with me anywhere.

She. I'll not accept the keys of the little chest And all that within is now possesst; I'll not be your love and your only dear, And go walking with you anywhere.

He. I'll give you the very keys of my heart
To bind us together till death us do part,
If you'll be my love and my only dear,
And go walking with me anywhere.

She. I will accept the keys of your heart
To bind us together till death us do part;
I will be your love and your only dear,
And go walking with you anywhere.

THE NATIONAL ANTHEM.

As sung in Dorset in 1809.

God save great George our King,
Long live our noble King,
God save the King.
May he defend our laws,
And ever give us cause,
To sing with heart and voice
Long live the King.

From every latent foe,
From the assassin's blow,
God save the King.
O'er him Thine arm extend,
For Britain's sake defend
Our father, prince, and friend;
God shield the King.

God save Charlotte our Queen,
Long live our gracious Queen,
God save the Queen.
May all her virtues shine
Throughout the Brunswick line
Until the end of time;
Long live the Queen.

Fame, let thy trumpet sound,
Tell all the world around;
Great George is King.
Tell Holland, France, and Spain
All idle threats are vain,
Britannia still rules the main,
And great George is King.





The Molls of the Court Baron of the Manor of Winterborne Waste,* alias Monkton.

By W. MILES BARNES.

is surprising how little attention manorial court rolls have attracted, yet to the local historian they are invaluable; in them he finds for generations the names of the tenants of the manor, who, with their families, constituted the bulk of the population, a description of their holdings, their rents, the names of their tenements, the position of their dwelling houses and

farm buildings, the customs of the manor, the names of the steward and officers of the court; even the disputes of the tenants amongst themselves over parochial matters are duly chronicled. No history of a parish can be considered complete

^{*}Winterborne Waste seems to be a corruption for Winterborne Vaste (i.e., De Vasto's Winterborne). The name Vast was probably spelt vvast. and the two small v's, standing for a capital V, were mistaken by some copyist for a W.

It was a common practice to use a duplicated small letter for a capital letter thus, in the minutes of the Court held October, 1696, February is spelt ffebruary.

which does not take into account the contents of the court rolls of the manor to which it belonged.

Yet, though an innumerable number of rolls exist in many parishes, nothing is known of them even by their possessors, who are sometimes quite unconscious that such interesting historical documents are in their deed chests, and they are so little regarded that many have been sold for a song to London second-hand booksellers, and may often be purchased from them for a few shillings.

On looking over the new index to our volumes, I do not find that the court rolls of a single parish in Dorset have been brought under the notice of the Members, and it is strange that, though there must be in the county so many highly-interesting manorial court rolls, the first to be noticed in these pages should be those of a very unimportant manor.

The Rolls of the Court Baron of the Manor of Winterborne Waste, alias Mounckton, now known as Winterborne Monkton. Dorset, are believed to be in private hands, but rough drafts of some of them—probably the minutes of the several meetings of the court from which the rolls were engrossed, as they bear the autographs of the members of the homage present at themhave been put into my hands; they are a very imperfect series. The earliest is dated October 30th, 1673, the latest, April 3rd, 1788. From them it appears that two courts were generally held in each year. Sometimes a special court was held in addition for accepting a surrender or transacting other business, which came out of course. The following is a list of the years of which there are minutes of the court. When the minutes of both courts held in a year exist a (2) in brackets is added after the date of the year:—1673, 1675 (2), 1677 (2), 1679, 1682 (2), 1683, 1685, 1686 (2), 1693, 1695, 1696, 1698, 1699, 1705, 1707, 1712 (2), 1717, 1730, 1750, 1753, 1754, 1758, 1761, 1764, 1765, 1767, 1770, 1771, 1772, 1776, 1778, 1781, 1782, 1784 (2), 1786, and 1788.

I will now give specimens of two of the earliest rolls, those for October, 1673, and April, 1675, and two of the later ones for

46 ROLLS OF COURT BARON OF WINTERBORNE WASTE.

July, 1753, and May, 1750. Most of the abbreviations used in the originals have been extended in these copies. Following these are extracts from the other rolls, and lastly the list of the tenants on the manor and a survey of their tenements made on the death of John Stevins, "Lord of the Manor and farmer." The word farmer is used in the same sense in which the word from which it is derived is used in the Domesday survey. John Stevins farmed the rents, not the land; he was lessee of the manor and lordship. The true Lords of the Manor were the Dean and Chapter of Exeter, who seem to have exercised some kind of supervision, as on the minutes of two of the courts there is a note—"The Deane and Chapter saw this." lordship may have been the cause of the misunderstanding mentioned in the roll of April 13th, 1784, when one tenant refused to attend the court and another tried to prevent the lessee from doing so. The incident is mentioned in its place.

1673

The presentment of the homage of the Manor of Winterborne Wast all Mouncton att ye court Barron held ye 30th day of October 1673 viz.

Imprimis we present that wee doe not know any Tennant deceased since ye last courte.

Item, we present Elizabeth Pooke widdow for encroaching vppon widd Alic Pooke and Mr. Walker gent ground in ye furland called by ye name of Marle, time is given her to allott back the same unto the said widdow Alic Pooke and Mr. Walker before Michaelmas next one payne of 10s.

Item we present Thomas Walker gent for sufferinge his stable to be in decay time is given him to repaire the said stable before Midsummer next on paine of 13s. 4d.

John Petty John Middleton George Reade William Middleton Joseph Bascom John Blanchard William Read The presentment of the homage of the Mannore of Winterbourne Wast als Mounckton att ye Court Barran held the 23rd day Aprill 1675

Imprimis. We present that we doe not know any Tennant deceased since ye last court

Item. Wee present Ursvlae Michell widoe for sufferinge her house to be in decay time is given her for repaireinge the Same before Michs next one payne of ros.

Item. Wee present John Blanchard for not making fast his cloase hedge and therefore fined 13s 4d time is given him to make him fast before May day next one payne of 10s

Item. Wee present Anthony Knight for not making fast his fence att meare ditch, therefore fined time is given to make him fast before May day next on payne of 20s.

Item. Wee present georg Read for not making fast his fince at Meare ditch therefore fined 5s. time is given him to make him fast before May day next one payne of 10s.

Item. Wee present Anthony Knight for encroaching vppon his neighbours Land mark Thomas Walker gent & Allas Pook widow in a certain furland called by ye name of Marle which was formerly presented and doth yett refuse to Restore it back again therefore he has forfeited his former Amerciament which was 50s. and doth still refuse to allote back againe therefore fined 20s. more

Item. We present Georg Read. . . Anthony knight for not aparing at court therefore find as on their heads.

Item. We present y^t every Tennant is to come to strike furrows and to pitch bon stones att the warning of ye churchwardens with their horses and sulls as ye churchwardens shall apoint between ye date abouesaid and May day next ensuing one payne of 5s. each one making default

John Middleton William Middleton John Blanchard

Joseph Bascome William Read

48 ROLLS OF COURT BARON OF WINTERBORNE WASTE.

1753

The Manor of Winterborne Wast otherwise Muncton.

The Court Baron and Court of survey of William Taunton Lord and Farmer of the said Manor there held the 30th day of July in the year of our Lord 1753. By. Wm. Templeman Junr. Steward William Notley app and sworne

Imprimis. We present the usual breakings and laying up of the Common fields.

Item. We present that no suck Lamb shall be fed on the Commons nor any ducks or geese there on penalty of 3s. 4d.

Item. We present that no fold runs with their dams in the Commons on the penalty of 10s. each fold.

Item. We present Henry Wyer is dead since the last court and that the widow Wyer is dead since the last court, and that the widow Wyer held for her widowhood the Tenement he died possessed of.

Item. We present that Susannah Bascombe widow is also dead since the last court that a Heriot is paid and that the Lords next Tennant is Mary Kexton formerly Bascombe.

Item. We present the widow Petty dead since the last court and that Widow Wyer holds the same for her widowhood that a Heriot has been paid for the same.

Item. We present all our ancient customs.

Item. We present William Notley and Benjamin Whiteway to be leazors for the year ensuing

Jno Keates Jno Balston William Notley Thomas Rose Sam. Winzar



The Manor
of
At a Court Baron of William Taunton Gent Lord
and Farmer of the said Mannor there held the 21st
Monkton
Day of May 1750

by R Lumley Kingston, Steward

John Keate
The Homage Henry Wyer
Thomas Rose

The presentment of the Homage for the Manor of Monkton. We present. that the ground called Orchard be laid up the 10th of May and broken the 23rd of June following by Calves only till the 1st day of August. That the horse Leaze be laid up the 10th of May and broke 15th July following.

We present. That no person let loose his Horse on the Leaze wilfully on forfeiting of 5s. each Horse.

We present. That the Cow Leaze known by the name of the Moor be laid up the 1st Sunday after Candlemas and broken the 3rd of May.

That no horse shall feed in the Winter Leaze after Harvest untill Micha^a Day on forfeiture of 5s. for each horse to the Leasers, and no tenant to Loose his horses nor Cows in the Corn fields nor under the hedges within the mannor on forfeiture of 3s. 4d. each horse or Cow to the Leazers

That the mead be laid up the 1st day of March and broken the 1st Sunday after Thomas a Beckett

That the Gralton ground be laid up the 1st day of March and broken the 1st day of August.

That no cows Bullocks or Horses be put into the Cow Leaze before day nor after night on penalty of 1s. for each offence.

That the 1st Breech for Sheep, be the 7th day of September, the 2nd the 8th of October, the 3rd the 21st of October, the 4th the 10th of November, and the 5th on St. Thomas Day.

That the horses break the winter lease at Michas day and the Cow Lease the 11th day of Nov.

That no Tenant within the Mannor shall suffer a pig or pigs to go unringed from the end of Harvest till Michas day and that

50 ROLLS OF COURT BARON OF WINTERBORNE WASTE.

no pig go out in the field or Common within the mannor after the time afores^d on paying 3s. 4d. each pig.

That the furrows be struck and Bond Stones placed in the Common field within the mannor and the Bailiffe give notice to the Tenth to appear the 6th of May on penalty of 3s. 4d.

That all the lotts out of repair be putt in repair before the 5th of June next and so kept on the penalty of 6s. 8d. and in 15 days after proper notice given them by the Leasers if not done within the time to forfeit 13s. 4d. for every defect

That no dung shall be carried up on the stubble nor in Hook ground after the 1st day of Augt next till the 7th of Sept on penalty of 6s. 8d.

That no tenant plow up any of the Summer field till the 20th of September nor any stubble land in Hook ground after the 1st day of August till the 26th of Sep on forfeiture of 6s. 8d.

That any tenant may keep a mare instead of a Horse or Gelding but not with a fole on pain of forfeiting of 20s. when pounded by the Leasers.

That the Hayward take no more than 2d. for each Horse or Cow or kind or for a swine or for one sort of sheep.

That no tenant keep geese or ducks in the Common or in the ffield on pain of 3s. 4d. each.

That after barley sowing there shall be no way through the Corn Field for more than a single horse on penalty of 1s. for each Horse and that no person shall keep a suck lamb to go on the Common on pain of 3s. 4d.

We present that Eliz Notley widow is dead since the last Court and that Henry Wyer is the Lord's next Tent who came in to Court and claimed to be admitted and was admitted accordingly and did his Fealty and that at her death a Heriot became due to the Lord wh is paid.

We present that Henry Notley is dead since the last Court and that William Notley is the Lord's next Tent who came into court and claimed to be admitted and was admitted accordingly and did his Fealty and that at his death a heriot became due to the Lord whis paid.

We present farmer Kexton and Farmer Wyer to be leazers and Edw^d Bird to be Hayward for the y^r.

We present that the Horses belonging to the passonage shall not be changed within a month nor to be out before Day or after night under the penalty of 6s. 8d. each offence.

Jn Keate Henry Wyer.

NOTES AND EXTRACTS.

Amongst the place names the following occur as names of fields:—The Grattan ground, horse leaze, moor or cow leaze, winter leaze, Hook, Orchard.

In the earlier rolls especially church festivals are given as dates for the opening and closing of fields and other agricultural operations, as Candlemas, Thomas Day, Thomas of Becket, Allhollontide Allhollontide old style, S. Luke, Martinstide, Marston Day, Lammas day.

The roll for March, 1758, is inscribed—"I had these of Justin Williams Cort Steward in George Loworthy time."

The names of some of the Lords of the Manor appear on a few of the rolls, from which we gather that in 1679 Lewes Stevins was Lord of the Manor, and in

1697-1717 John Stevins.

1719 Exors. of John Stevins, John Stevins being declared to be defunct.

1750-1788 William Taunton.

Members of the homage are fined from time to time "for not appearing to do their Lord's service at the Court."

Oct. 16. 1696. We present ye common hedges to be fenced and repaired by ye tenth day of ffebruary and doe impower ye church wardens to collect ye money of all yt are to pay to it, to be repaired by ye 10th of ffebruary next on paine of 20s. each person denying.

Sep. ye 27. 1683. Item. Wee present John Petty for his barnswall next Goody Pooks back side to be in decay time is given for the repairing thereof one payne of £1 6s. 8d.

1698. The mead "to be common ye soundy after yrean ffaire." It seems possible that "yrean ffaire" may mean "hiring fair," but in 1705 "Green fair" is mentioned. No fair that I am aware of is known under that name now.

July 7. 1682. Item. We present ye chourch hous to be in decay time is given till the next court one the penalt of 6s. 8d.

(The church house was still in decay September, 1683.)

It was the duty of the tenant to whose holding it belonged to keep the church house in repair. Thus in 1754 John Kextone was responsible for this duty. 1754. "At this court John Kexton was admitted Tent in right of Mary his wife to all those tenemt called Bascombes a quarter part of Palmers and the Church House and which Tenement Sussannah Bascoms widow died in possession for her widowhood."

Nov. 5. 1767. "Item. We present John Kextone letting the Church house to be very ruinous and in decay Time is given him till Lady Day next to repair it on payment of ten pounds.

(Same roll.) Item. we present the widow Casher for letting the buildings of her Tenement to be very ruinous and in decay and that she have forfeited her Tenement until the Lord is repaid for the rebuilding of it."

June 21. 1781. We present that the horses belonging to the parsonage shall not be changed within a month nor to be out day nor after night under the penalty of 6s. 8d. for each offense.

May 2. 1750. "That no cows, bullocks or horses be put into cow leaze before day nor after night on penalty of 1s. for each offence

1730. "Item. We present that the overseers of the poor within this parish and mannoer shall have full power from time to time to repair the parish well that is in common as often as needfull and to be reimbursed by the poor rate and no horse to drink out of the bucket belonging to the said well knowingly on pain of 1s. for each offence.

In the roll for 1761 the parish well is stated to be "in the common."

April 13. 1784. "We also present that Henry Kexton one of the customary or copyhold tenants of this manor did refuse when sworn of the homage to present the truth according to his oath and that the said Henry Kexton hath twice since refused to attend the Lord's Court when thereto requested by the Lord in person.

We also further present that Joan Wyer widow did positively and peremptorily refuse the Lord in person admittance into the ancient Court house or customary place of holding the Courts of the said manor at time immemorilly together with the tenants attending their Lord upon that occasion."

The court roll of the following year (1785) is missing, so that the sequel to this story of the tenant defying the Lord, refusing him access to his own Court, is wanting. The misunderstanding probably arose from the dual ownership mentioned in the introduction.

In the following year 1786 the Court presented the death of Joan Wyer. Joan Wyer as widow of John Wyer possessed for her widowhood three tenements within the manor "by whose death three Heriots are due to the Lord according to the Custom of the Manor."

In this year Peter Barrett and Thos. Barrett, blacksmith, of Bradford Peverel received a grant of three tenements, probably those held by Joan Wyer. For these they paid a fine of £10 10s. and rents of 9s. 7d. each. "And so the said Peter Barrett and Thomas Barrett are admitted Tenants and did fealty to the Lord."

Nov. 4. 1730. Item. We present that at every ensuing Court Baron to be held for this mannoer shall be defrayed six shillings and eight pence in providing a Recepcon (?) for the dinner of the Tennants of this Mannoer in a piece of Beef Bread and Beer which money shall be laid out by the Overseers of the poor of this parish of Monckton for the time being and they to reimburse themselves from time to time out of the poor rate proportionable to the value of each Tennants Tenem.

54 ROLLS OF COURT BARON OF WINTERBORNE WASTE.

APPOINTING THE HOMAGE.

A court was held for the appointment and swearing in of the homage, after which the court adjourned and met for the transaction of business later in the year.

Manner of Summoning the Court.

Specimens are given beneath of summons issued in 1695 and 1705. Following these is a list of the tenants of the manor and a copy (the abbreviated Latin extended) of the survey of the manor, with a description of the holding of each copyholder, accepted at the Court held after the death of John Stevins (1719-1722). It will be seen that the Latin is rather corrupt.

1695

Winterborne Waste ff Charles Roberts genl. Steward of the mannoer aforesaid.

To Mrs Susanna Mogg these are to Desire you to cause to be made knowne that the Court Barron for the manoer aforesaid is to be holden and kept on Munday the two and twentieth day of Aprill next by nine of the clocke in the forenoone of the place accustomed. And that y^u sumon and warne the tenants of the said mannoer to appeare at the said Court to doe their respective suite and services and that they pay in their Rent at the Court otherwise they will be distrained for the same. And that you sumon and warne William Middleton to appear at the said Court to answer to a presentm^t ab^t him made and that y^u then and there make returne of this precept Giuen vnder my hand the 30th day of March 1695

Car Roberts Seneschal ibm.

Another copy is signed Charles Roberts steward.

1705. Winterbourne Waste ff Richard Evens Steward of the Mannoer aforesaid

To Rich^d Keate these are to desire you to cause to be made knowne that the Court Baron to John Stevins gen for the mannoer aforesaid is to be holden and kept on munday the second day of July next by Tenn of the Clocke in the forenoone att the place accustomed at w^{ch} time and place all persons concerned are to make their appearance and give their attendance.

Giuen vnder my hand the 19th day of June

Richard Evans Steward.

Transcript.

COURT ROLL OF MONKTON, CO. DORSET.

1719-1722.

Manerium de Winterborn)
Wast alias Munckton.

Curia Baronis Thome Maunsell Armigeri Edmundi Burgh Armigeri Roberti Andrews Generosi et Philippi Ridgate Armigeri Legum Doctoris Domini et Firmarii [sic] Manerii predicti Administratoris cum Testamento annexo Johannis Stevins Generosi Defuncti nuper Domini et Firmarii Manerii predicti ibidem tenta Die Mercurii Quarto die Novembris Anno Regni Domini nostri Georgii nunc Regis Magne Britannie etc. sexto Annoque Domini 1719.

per Morganum Harbin Senescallum ibidem.

Homagium ibidem.

Edwardus Pierce generosus Jurator Ricardus Keate Willelmus Bascombe Robertus Notley

Irrotulatur sic Cum Johannes Middleton filius Willelmi Middleton senioris in Curia predicti Johannis Stevins pro Manerio predicto tenta decimo tertio die Maii Anno Regni Willelmi tertii nuper Regis Anglie etc. decimo cepit de eodem Johanne Stevins ex tradicione sua propria tonsuram dimidie acre prati in West Ward alias Burnham dimidiamacram prati extedentem usque ad janam nuper [sic: januam] vocatam Henry Notlyes Gate unam acram vocatam le Outacre in Chalk Hill tertiam partem de dimidia acra in boriali parte de Watcombe unam acram apud Dogbery on the Wall quartem partem unius acre apud Dogbery dimidiam acram apud Nether Bradon le Occidentalem acram apud Brofferland le Orientalem acram subter Henbury le yard subter Rowdon unam acram vocatam le acre in Slade le Occidentalem acram in Bushell le yard in Marle et pasturam pro uno equo una vacca una vitula et viginti et duobus bidentibus tunc nuper in possessione cujusdam Johannis Blanchard de Munckton predicta Habenda et tenenda omnia et singula premissa predicta cum pertinentiis prefato Johanni Middleton et Johanni Middleton et Thome Middleton filiis Willelmi Middleton Junioris pro termino vite eorum et alterius eorum diucius viventis successive secundum consuetudinem Manerii predicti per Redditum inde per Annum iije iiije ac per xx* in nomine Heriotti post decessum cujuslibet eorum moriente Tenente in possessione premissorum Et predictus Johannes

Sursum Redditio Johannis Middleton. Middleton (filius predicti Willelmi Middleton) existens solus Perquisitor premissorum hic in plena Curia sursum Redditit in manibus Dominorum et Firmariorum Manerii predicti Tonsuram dimidie acre in Westward alias Burnham et cetera premissa predicta cum

pertinentiis ac totum statum jus titulum et Interesse in eisdem pro termino vite sue et pro termino vite predictorum Johannis Middleton et Thome Middleton filiorum predicti Willelmi Middleton junioris Ea intencione ut placeret [sic: placerent?] modo Domini et Firmarii novum concessum inde pro termino vite Johannis Petty de Dorchester in comitatu Dorsettie Vestiarii et Henrici Petty filii predicti Johannis et alterius eorum diucius viventis successive secundum consuetudinem Manerii predicti facere super quam quidem sursum Redditionem accidit dictis

Dominis et Firmariis de Heriotto ex convencione priore facta
nil super qua venit hic in Curia predictus

Status de novo
conceditur

Johanni Petty et
Henrico Petty:

Westward alias Burnham et cetera premissa
predicta cum pertinentiis Habendam et tenendam tonsuram

predicta cum pertinentiis Habendam et tenendam tonsuram predicte acre in Westward alias Burnham et cetera premissa cum pertinentiis prefatis Johanni Petty et Henrico Petty pro termino vite eorum et alterius eorum diucius viventis successive

secundum consuetudinem Manerii predicti per

Redditus Redditum inde per Annum iij* iiijd legalis
iijs iiijd monete Magne Britannie ad quatuor Anni
terminos infra Manerium predictum magis
usuales equis porcionibus solvendum Ac per xxt in nomine
Heriotti utriusque eorum moriente Tenente in possessione
premissorum Ac per omnia alia Onera consuetudines sectas et
servicia inde prius debita et de jure consueta Et pro Excambio

Finis super
Excambium
xt.

predicto et premissis predictis in forma
predicta habendo predictus Johannes Petty
dat dictis Dominis et Firmariis de Fine xt
premanibus solutas Et sic idem Johannes

Johannes Petty
admissus est inde tenentem Et fecit
dictis Dominis et Firmariis fidelitatem Et
fidelitas predicti Henrici Petty respectuatur quousque etc. Datum per Copiam

Rotulorum Curie Manerii predicti sub manibus et sigillis Dominorum et Firmariorum Manerii predicti Die Anno et loco supradictis.

Manerium de Winterborn Wast alias Monkton.

Ad specialem Curiam Baronis Thome Maunsell Armigeri Edmundi Burgh Armigeri Roberti Andrews generosi et

58 ROLLS OF COURT BARON OF WINTERBORNE WASTE.

Philippi Ridgate Armigeri Legum Doctoris [sic] Domini et Firmarii Manerii predicti et Administratoris cum Testamento annexo Johannis Stevins generosi defuncti nuper Domini et Firmarii Manerii predicti ibidem tenta die Jovis vicesimo quarto die Decembris Anno Regni Domini nostri Georgii nunc Regis Magne Britannie etc. sexto Annoque Domini 1719.

Homagium ibidem.

Edwardus Pierce generosus Jurator.
Willelmus Bascombe
Ricardus Keate

Jurator.

Juratores predicti super sacramentum suum presentant Quod Anna Gatrell vidua Relicta Johannis Gatrell generosi Defuncti que de Dominis et Obitus Firmariis hujus Manerii tenuit pro viduetate secundum consuetudinem Manerii predicti unum Tenementum cum pertinentiis infra Manerium predictum citra ultimam Curiam diem suam clausit extremam unde accidit dictis Heriottum xxxjs Dominis et Firmariis unum Heriottum xxxjs solutum Et quod Johannes Gatrell generosus filius predictorum Johannis Gatrell et Anne uxoris ejus est proximus Tenens pro termino vite sue secundum consuetudinem Manerii predicti per Copiam Rotulorum Curie Admissio Manerii predicti Qui venit et Clamium suum Johannis inde fiecit Et petit se inde admitti Tenentem Gatrell. Ouod ei conceditur Et admissus est Et fecit dictis Dominis et Firmariis fidelitatem suam.

Manerium de Winterborn Wast alias Munckton.

Curia Baronis Thome Maunsell Armigeri Roberti Andrews generosi et Phillipi Ridgate Armigeri Legum Doctoris

Domini et Firmarii Manerii predicti et Administratoris cum Testamento annexo Johannis Stevins Generosi defuncti nuper Domini et Firmarii Marerii predicti ibidem tanta die Lune decimo nono die Martii Anno Regni Domini nostri Georgii nunc Regis Magne Britannie etc. Octavo Anno que Domini 1721.

per Morganum Harbin Senescallum ibidem.

Homagium ibidem.

Johannes Keate generosus Jurator. Robertus Notley Juratores.

Edwardus Read Juratores.

Willelmus Middleton Juratores

Willelmus Bascombe

Irrotulatur sic. Ad hanc Curiam venit Nathaniel Gould Generosus Willelmus Chapple Armiger et Georgius Gould generosus et hic in plena Curia cepit de Dominis et Firmariis

Revercio vidue.

predictis ex tradicionibus suis propriis Revercionem unius Tenementi et dimidii post Tenementi cum Horto Gardino et parvo clauso pasture dicto Tenemento et dimidio Tenementi adjacentibus cum pertinentiis continentis unam acram aceciam dimidia acre prati in le West Meadow unius alie

dmididia acre prati in le Common Meadow vocata Meere trium Roddarum Prati in Westward vocatarum Burnham Triginta et octo acrarum terre arabilis jacentium in Communibus Campis ibidem (videlicet) viginti acrarum jacentium in Occidentali Campo et Octodecim acrarum jacentium in Orientali Campo Aeciam pasture pro Centum bidentibus quinque equis sive spadonibus quinque vaccis duobus Juvencis et tribus Vitulis cum pertinentüs nuper in tenura Antonii Knight defuncti et modo in tenura Debore Knight vidue Relicte predicti Antonii Knight pro termino viduetatis sue Habendam et tenendam Revercionem predictam necnon tenementum predictum et dimidium Tenementi predicti et cetera premissa predicta cum

Conceditur
Nathanieli
Gould generoso
Willelmo Chapple
Armigero et
Georgio Gould
generoso.

omnibus et singulis suis pertinenciis (Immediate cum post Mortem sursum Reddicionem Forisfacturam vel alteram determinacionem status predicte Debore) prefatis Nathanieli Gould Willelmo Chapple et Georgio Gould pro termino vite eorum et cujuslibet eorum diucius viventis successive secundum Consuetudinem Manerii predicti Per Redditum

Redditus inde annuatim cum Revercione predicta [sic.]

xvs iji acciderit Quindecim solidorum et duorum denariorum legalis monete Magne Britannie

ad quatuor Anni terminos infra Manerium predictum magis usuales equis porcionibus solvendum Ac per omnia alia Onera Redditus Consuetudines sectas et servicia inde prius debita et de jure ab antiquo consueta Et predicti Nathaniel Gould Willelmus

Finis centum et Quadraginta libre. Chapple et Georgius Gould dant dictis Dominis et Firmariis de Fine pro Revercione predicta et premissis predictis in forma predicta habendis Centum et quadraginta libras premanibus solutas Et sic Iidem Nathaniel Gould Willelmus

Chapple et Georgius Gould admissi sunt inde Tenentes ut in Revercione Et fidelitas eorum respectuatur quousque etc. Datum per Copiam Rotulorum Curie Manerii predicti Ac sub manibus et sigillis dictorum Dominorum et Firmariorum Die Anno et loco supradictis.

Ad hanc curiam venit Georgius Gould generosus et hic in plena curia cepit de dictis Dominis et Firmariis ex tradicionibus suis propriis Revercionem Omnium Domorum Gardinorum et le Backside et unius Clausi nuper in possessione Willelmi Blanchard modo defuncti et parcellæ (Anglice a Lott) Jampnorum in le novo Clauso et le Dole prati apud le Crooke et dimidie acre usque ad Washing Pool Plott et Quatuordecim

acrarum et tres particas [sic] terre arabilis in communi campo (videlicet) le Pitt acre in Sowerland et unius acre apud Outside

Revercio post viduetatem Anne Blanchard vidue. de Dogbery et dimidie acre apud Dogbery unius acre apud Higher Braddon unius acre apud le Orientalem Campo [sic] in Brofferland unius acre in le Stripland unius dimidie acre subter Bowden unius acre super le Wall subter

Henbury unius acre vocate le claw acre subter Rowden unius dimidie acre snbter Henbury unius acre in le Marn prope altam viam et le Orientalem acram in le Burshill unius acre in le Ham unius dimidie acre in Northover unius dimidie acre in le Slade unius acre per le Wall apud Swalron unius interioris acre super le Chalkhill duarum particarum le dimidie acre in Watcomb et pasture in communi campo pro Quadraginta et quatuor bidentibus Duobus equis sive spadonibus duabus vaccis una Juvenca et una vitula cum pertinentiis Habendam et tenendam Revercionem predictam Necnon Domos Gardina et le Backside predicta et omnia et singula cetera premissa predicta cum pertinentiis snperius specificatis (Immediate cum post Mortem sursum Reddicionem sive forisfacturam Anne Blanchard vidue

Georgio Gould
generoso
Nathanieli Gould
generoso et
Willelmo
Templeman
generoso.

Relicte predicti Willelmi Blanchard aut aliter acciderit) predicto Georgio Gould Nathanieli Gould generoso fratri predicti Georgii Gould et Willelmo Templeman generoso pro termino vite eorum et cujuslibet eorum diucius viventis successive secundum consuetudinem Manerii predicti Per Redditum inde annuatim cum Revercione [sic]

Redditus predicta acciderit vjs vd legalis monete Magne vjs vd Britannie ad quatuor anni Terminos infra Manerium predictum magis usuales equis porcionibus solvendum Ac Heriottum quociescunque acciderit secundum consuetudinem Manerii predicti Ac per omnia alia Onera Opera Redditus sectas consuetudines et servicia inde

Concessio Willelmi Bascombe. Ad hanc curiam venit Willelmus Bascomb et cepit de Dominis et Firmariis predictis ex tradicionibus suis propriis unum cottagium et unum Gardinum cum pertinentiis communiter vocatum le Churchouse scituatum infra

Manerium predictum nunc in tenura sive occupacione cujusdam

Habendum Sibi Susanne uxori et Marie filie ejus. Benjamini Whittle Habendum et tenedum Cottagium et Gardinum predictum cum pertinentiis (Immediate cum post Festum Annunciacionis beate Marie virginis proximo futurum) prefato Willelmo Bascombe Susanne uxori ejus et et [sic]

Marie filie predictorum Willelmi et Susanne pro termino vitarum eorum et cujuslibet eorum diucius viventis successive secundum consuetudinem Manerii predicti Per Redditum Redditus j^s inde annuatim j^s legalis monete Magne Britannie ad quatuor Anni terminos infra Manerium predictum magis usuales equis porcionibus solvendum Et pro Heriotto cum acciderit vj^s viij^d Ac per omnia

Heriotto cum accident vjs viija Ac per omnia

Heriottum

alia Onera opera consuetudines sectas et

vjs viija

servicia inde prius debita et de jure consueta

ab antiquo Et pro tali statu et ingressu sic in

Finis xt premissis habendis predictus Willelmus Bascombe

dat de Fine decem libras premanibus solutas Et sic

Admissio. idem Willelmus admissus est inde Tenentem et fecit
dictis Dominis et Firmariis fidelitatem sed fidelitas

predictarum Susanne et Marie respectuatur quousque etc.

Datum etc.

ROLLS OF COURT BARON OF WINTERBORNE WASTE.

Concessio Roberti Notley senioris.

muniter vocatum

Habendum Henrico Willelmo et Thome Notley filiis ejus.

Ad hanc curiam venit Robertus Notley et cepit de Dominis et Firmariis predictis ex tradicionibus suis propriis unum Cottagium et unum Gardinum cum pertinentiis com-Govers house scituatum infra Manerium predictum modo in separalibus tenuris sive occupacionibus Thome Cary et Elizabethe Day Habendum et tenendum Cottagium et Gardinum predicta cum pertinentiis (Immediate cum post Festum Annunciacionis beate Marie Virginis proximo sequens) Henrico Notley Willelmo Notley et Thome Notley filiis predicti Roberti Notley pro termino vitarum eorum et cujus-

libet eorum diucius viventis successive secundum Redditus je consue tudinem Manerii predicti per Redditum inde annuation j⁸ legalis monete Magne Britannie Ad quatuor Anni terminos infra Manerium predictum magis usuales equis porcionibus solvendum Ac per heriottum

Heriottum vje viijd

cum acciderit vjt viijd Ac per omnia alia onera opera coonsuetudines sectas et servicia inde prius debita et de jure ab antiquo consueta Et

pro tali statu et ingressu sic in premissis habendis predictus Robertus Notley dat dictis dominis et Firmariis de Fine sex libras et sexdecim solidos premanibus Finis

Henricus Notlev

61 16

soluta Et sic predictus Henricus Notley admissus est inde Tenentem Et fecit dictis Dominis et Firmariis fidelitatem sed fidelitas predictorum Willelmi Notley et Thome Notley respectuatur quousque etc. Datum &c.

Concessio Henrici Notley senioris in Reversione Roberti Notley et Henrici Notlev.

Ad hanc curiam venit Henricus Notley senior Et cepit de Dominis et Firmariis predictis ex tradicionibus suis propriis Revercionem unius Tenementi cum uno Herreo Gardino et parvo closo pasture dicto Tenemento adjacente et pertinentiis continentibus

64 ROLLS OF COURT BARON OF WINTERBORNE WASTE.

dimidiam Roddam unius Rodde prati in West Mead et tonsure dimidie acre prati in Westward vocate Burnham Octodecim acrarum et dimidie acre in communibus campis ibidem (videlicet) Novem acrarum et dimidie in le Campo Orientali et Novem acrarum in le Boreali campo et pasture pro sexaginta et sex bidentibus tribus equis sive spadonibus tribus vaccis una Juvenca et duabus vitulis cum pertinentiis modo in possessione Roberti Notley fratris predicti Henrici Notley Habendam et tenendam Revercionem predictam necnon Tenementum predictum et cetera premissa predicta cum

Habendum

omnibus et singulis suis pertinenciis (Immediate cum post mortem sursum Henrico Notley

Reddicionem forisfacturam vel alteram determinacionem separalium statuum predictorum Roberti Notley et Henrici

Notley aut aliter acciderit) Henrico Notley Juniori filio predicti Henrici Notley senioris pro termino vite sue secundum consuetudinem Manerii predicti Per

Redditus Redditum inde annuatim cum Revercione ixs vijd predicta acciderit ix vij legalis monete Magne

Brittanie at quatuor Anni terminos infra Manerium predictum magis usuales equis porcionibus solvendum Ac

Heriottum per heriottum secundum consuetudinem Manerii predicti Ac per omnia alia onera Redditus sectas consuetudines et servicia inde prius debita et de jure consueta

Et predictus Henricus Notley senior dat dictis Finis xxt Dominis et Firmariis de Fine pro Revercione

predicta et premissis predictis in forma predicta habendis Viginti libras premanibus solutas Et sic predictus Henricus Notley Junior admissus est inde Tenentem ut in Revercione Et fidelitas ejus respectuatur quousque etc. Datum etc.

Cum Laurentius Palmer in curia predicti Johannis Stevins ibidem tenta Decimo sexto die Aprilis Anno regni domine Anne* nuper Regine Anglie etc. primo cepit de eodem Johanne Stevins

unum Tenementum cum uno Horreo Gardino et une parvo Closo pastuae dicto Tenemento adjacente continente unam Roddam et unam dimidiam Roddam prati in Westward Tonsuram duorum Roddarum Prati in Westward vocatarum Burnham viginti et quatuor acras terre arrabilis in le commune campo (videlicet) duodecim acras et unam Roddam in le Campo Orientali et undecim acras et tres Roddas in le Boreali Campo et pasturam pro sexaginta et sex Bidentibus tribus equis sive spadonibus tribus Vaccis una Juvenca et duabus Vitulis cum pertinenciis nunc in possessione predicti Laurentii Palmer Habendum et tenendum Tenementum predictum et omnia alia premissa cum pertinenciis prefato Laurentio Palmer et Margarette Clarke filie Thome Clarke nuper de Thorncombe in Comitatu Devonie defuncti (modo uxori Henrici Hine) et Rebecce Palmer filie predicti Laurentii pro termino vite eorum et alterius eorum diucius viventis successive secundum consuetudinem Manerii predicti per Redditum inde annuatim ixº vijd et per heriottum etc. Et pro tali statu in premissis habendo idem

Sursum Redditio Laurentii Palmer de vita sua et vitarum Margarette Hine et Rebecca Palmer. Laurentius dedit prefato Johanni Stevins xij† xviijd de Fine Nunc ad hanc Curiam venit predictus Laurentius Palmer (existens solus Perquisitor premissorum) et sursum Reddit in manibus Dominorum et Firmariorum predictum Tenementum et cetera premissa predicta cum pertinentiis ac totum statum jus titulum et interesse

sui [sic] in eisdem pro termino vite sue et vitarum predicte Margarette Hine et Rebecce Palmer et alterius eorum Ex intencione ut placeret dictis Dominis et Firmariis novum Concessum inde pro termino vite ipsius Laurentii Palmer et pro termino vitarum predictarum Rebecce Palmer et Margarette Hine secundum Consuetudinem Manerii predicti facere prout post hac sequitur (Excepta pastura pro sex bidentibus de predictis sexaginta et sex bidentibus) super qua quidem sursum Redditione accidit dictis Dominis et Firmariis de heriotto ex

convencione priore facta Nil Et super qua venit hic in Curia predictus Laurentius Palmer et cepit de dictis Dominis et Firmariis ex tradicionibus suis propriis predictum Tenementum Horreum Gardinum parvum Closum Pasture Tonsuram viginti et quatuor acrarum terre arabilis et pasturam pro sexaginta bidentibus tribus equis sive spadonibus tribus vaccis una

Concesio de novo predictis Laurentio, Rebecce et Maegarette. Juvenca et duabus vitulis cum
pertinentiis Habendum et tenendum
Tenementum predictum et cetera
premissa cum pertinentiis prefato
Laurentio Palmer Rebecce Palmer
et Margarette Hine pro termino vite

eorum et alterius eorum diucius viventis successive secundum Consuetudinem Manerii predicti Pex Red-

Redditus ix vija ditum inde per Annum ix viia legalis monete Magne Britannie ad quatuor Anni terminos infra Manerium predictum magis usuales

Heriottum equis porcionibus solveudum Et per Heriottum cum acciderit Ac per omnia alia Onera Redditus sectacs onsuetudines et servicia inde prius debita et de jure consueta Et pro tali statu et ingressu de novo sic in premissis predictis in forma predicta Habendis predictus Laurentius Palmer dat dictis Dominis et Firmariis de Fine

Finis xxj^s viginti et unum solidos premanibus solutos Et sic idem Laurentius Palmer admissus est inde Laurentius Tenentem Et fecit dictis Dominis et Firmariis Admissus. fidelitatem Et fidelitas predictarum Rebecce et Margarete respectuatur quousque etc. Datum etc.

Cum Maria Gover de Munckton predicta vidua in Curia Johannis Stevins Generosi quondam Domini et Fixmarii Manerii predicti pro Manerio predicto tenta vicesimo secundo die Maii Anno regni Domine Anne nuper Regine Magne Britannie etc undecimo cepit de eodem Johanne Stevins ex tradicione sua propria Revercionem unius Tenementi unius Horti et parvi Clausi pasture dicto Tenemento adjacentis sive spectantis continentis dimidiam Roddam unius Rodde et dimidie Prati in

West Mead Tonsure duorum Roddarum prati in Westward vocatarum Burnham viginti et quatuor acxarum terre arabilis in Communibus Campis ibidem quorum undecim in East Field et pasture pro sexaginta et sex ovibus tribus equis sive spadonibus tribus vaccis una Juvenca et duabus vitulis cum pertinentiis tunc et modo in tenura predicte Marie Gover pro termino viduetatis sua [sic] seaundum Consuetudinem Manerii predicti Habendam et tenendam Revercionem predictam et omnia et singula premissa predicta cum pertinentiis (Immediate cum post mortem sursum Redditionem sive forisfacturam predicte Marie Gover aut aliter acciderit) Johanni Gover et Hanne Gover filio et filie predicte Marie Gover pro termino vite eorum et alterius eorum diucius viventis successive secundum Consustudinem Manerii predicti Per Redditum inde annuatim cum Revercione predicta acciderit Novem solidorum et septem denariorum Ae per omnia alia Onera Redditus sectas Consuetudines inde prius debita et de jure consueta Et pro tali statu sic in premissis in Ravercione habendo predicta Maria Gover dedit prefato Johanni Stevins de Fine lxxx[†] Nunc ad hanc curiam venit predicta Maria Gover (Existens sola Perquisitor premissorum) et sursum Raddidit

Sursum Redditio Marie Gover vidue.

in manibus Dominorum et Firmariorum

Manerii predicti Revercionem Tenementi et
Horti predictorum ac cetera premissa cum
pertineutiis Et totum statum jus Titulum et
interesse sue in eisdem pro termino vite
predicti Johannis Gover et Hanne (modo

uxoris Henrici Middleton de West Woodfford in comitatu Dorsetice Dairyman) Ea intencione ut placeret dictis Dominis et Firmariis novum Concessum inde pro termino vite predicti Johannis Gover Hanne modo uxoris predicti Henrici Middleton et Elizabethe Dimonl filie Willelmi Dimont de Herringston in Comitatu predicto Dairyman et cujuslibet eorum diucius viventis successive secundum Consuetudinem Manerii predicti facere super quo venit hic in Curia predicti Johannes Gover et Hanna Middleton et ceperunt de dictis Dominis et Firmariis ex tradicionibus suis propriis Revercionem predictam Tenementi

Horti et parvi Clausi pasture et cetera premissa predicta sic ut prefertur sursum Reddita cum omnibus et singulis suis pertinentiis Habendam et tenendam Ravercionem predictam Necnon Tenementum Hortum et parvum Clausum pasture

Habendum Johanni Gover Hanne Middleton et Eltzabethe Dimont. predicta cum pertinentiis (Imediate cum post mortem sursum Redditionem Forisfacturam vel alteram determinacionem status predicte Marie Gover aut aliter acciderit) prefatis Johanni Gover Hanne Middleton et Elizabethe Dimont protermino vite eorum et alterius eorum

diucius viventis successive secundum Consuetudinem Manerii predicti Per Redditum inde annuatim cum Redditus) Revercione predicta acciderit Novem solidorum ix vija et septem denariorum legalis monete Magne Britannie ad quatuor Anni terminos infra Manerium predictum magis usuales equis Heriottum. porcionibus solvendum Ac per heriottum secundum Consuetudinem Manerii predicti Ac per omnia alia Onera opera Redditus consuetudines sectas et servicia inde prius debita et de jure ab antiquo consueta Et predicti Johannes Gover et Hanna Middleton dant dictis Dominis et Firmariis de Fine pro Revercione predicta ac Finis xviijt. premissis predictis in forma predicta habendis Octodecim libras premanibus solutas Et predicti Johannes Gover Hanna Middleton et Elizabetha Dimont admissi sunt inde Tenentes ut in Revercione sed fidelitas eorum respectuatur quousque etc. Datum per Copiam Rotulorum Curie Manerii

predicti sub manibus et sigillis dictorum Dominorum et

Manerium de Monkton

Firmariorum die Anno et loco supradictis.

Curia Baronis Thome Maunsell Armigeri Roberti Andrews generosi et Philippi Ridgate Armigeri Legum Doctoris [sic]

et Domini et Firmarii Manerii predicti (Administratoris Johannis Stevins Generosi Defuncti nuper Domini et Firmarii ejusdem Manerii) ibidem tenta die Lune quarto die Maii Anno Regni Domini nostri Georgii nunc Regis Magne Britannie et [sic] viijo Annoque Domini 1722.

Homagium ibidem

Willelmus Bascombe. Jurator

Robertus Notley
Juratores.

Juratores predicti super sacramentum suum presentant Quod Maria Read vidua (Relicta Willelmi Read) que de Dominis et Firmariis hujus Manerii Obitus Marie Read vidue. tenuit pro termino viduetatis sue secundum Consuetudinem Manerii predicti unum Tenementum Customarium cum pertinentiis infra Manerium predictum citra ultimam Curiam diem suam Heriottum clausit extremam unde accidit dictis Dominis $\left\{\begin{array}{c} xxxiij^s \ vj^d \end{array}\right\}$ et Firmariis unum Heriottum xxxiijs vjd solutum et quod Johannes Keate Generosus est proximus Tenens per Copiam Rotulorum Curie Manerii predicti pro termino vite sue secundum Johannes Keate Consuetudinem Manerii predicti Qui venit et clamium suum inde fecit Et
petit se inde admitti Tenentem Quod ei generosus conceditur et admissus est Et fecit

[Endorsed] 4th Nov 1719. Munckton.

Dominis et Firmariis predictis fidelitatem suam.

70 ROLLS OF COURT BARON OF WINTERBORNE WASTE.

Transcript. (From loose sheet.)

COURT ROLL OF MONKTON, CO. DORSET. 1712.

Manerium de Winterborne Wast alias Munckton.

Curia Baronis Johannis Stevins generosi Domini et Firmarii Manerti predicti ibidem tenta die Veneris Vicesimo quarto Die Octobris Anno Regni Domine nostre Anne Dei gratia Mague Britannie Francie et Hibernie Regine Fidei Defensoris &c. Undecimo Annoque Domini 1712.

per Morganum Harbin

Deputum Senescallum ibidem.

Tenentes per Copiam.

- " Edwardus Pierce generosus
- ,, Laurentius Palmer
 Georgius Palmer Absconds
- ,, Franciscus Wadman
- " Robertus Notley
- " Willelmus Bascombe
- .. Ricardus Keate
- .. Edwardus Read
- " Willelmus Middleton

 Johannes Middleton [per catalla?] [" pcat"]
- ,, Josephus Druman
 Thomas Middleton

Antonius Knight presens in Curia sed non vocatus.

Tenentes pro viduetate

- ,, Anna Gatrell vidua
- .. Maria Read vidua

Tenentes Maria Gover vidua

- ,, Agneta Samways vidua non summonita
- ". Anna Blanchard vidua
- ,, Anna Keate spinster

Homagium ibidem

Edwardus Pierce generous—Jurator
Willelmus Bascombe
Franciscus Woodman
Laurentius Palmer
Willelmus Middleton
Robertus Notley
Edwardus Read

Juratores





On Some New and Kare British Arachnida.

By Rev. O. PICKARD-CAMBRIDGE, M.A., F.R.S., &c.

(Read February 22nd, 1906.)

PLATE A.

HERE can be, I fear, but little general interest in records like the present, useful as they may be to the specialist; moreover my inability to do scarcely any outdoor natural history work prevents my being much more than the purveyor of the results of the field work of kind friends. Since my last communication (February, 1905), the efforts of various friends enable me to record the addition of several new spiders to the British

fauna, while I have myself met with the male of one rare species (*Tmeticus fortunatus*, Cambr.), on the iron railings of the lawn at Bloxworth Rectory. The female (hitherto unrecorded) of another spider (*Laseola dissimilis*, Cambr.), was found by Dr. A. R. Jackson at Portland in July last, the male of this species having been met with by Dr. Jackson in the same locality in the previous year (1904). Of the species which I consider to be new to science one was found at Watton, Norfolk, by



EXPLANATION OF PLATE A.

Laseola dissimilis, Cambr.

Fig. 1. Genital aperture.

Episinus lugubris, Simon.

Fig. 2. Apex of palpal organs; left palpus on outer side.

Episinus truncatus, Walck.

Fig. 3. Apex of palpal organs; left palpus on outer side.

Bathyphantes spretus, sp. n.

Fig. 4. Profile of cephalothorax and falces. Fig. 5. Eyes from above and behind. Fig. 6. Genital aperture and process. Fig. 7. Ditto in profile.

Tmeticus adaptus, sp. n.

Fig. 8. Cephalothorax in profile. Fig. 9. Eyes from above and behind.
Fig. 10. Genital aperture. Fig. 11. Ditto in profile.

Maro minutus, sp. n.

Fig. 12. Cephalothorax and falces in profile. Fig. 13. Eyes from above and behind. Fig. 14. Genital aperture and process. Fig. 15. Under side of abdomen. Fig. 16. Abdomen in profile. Fig. 17. Outline of spider from above. Fig. 18. Maxillæ, labium, and sternum.

Microneta territa, sp. n.

Fig. 19. Eyes from above and behind. Fig. 20. Genital aperture. Fig. 21. Ditto in profile.

Microneta passiva, sp. n.

Fig. 22. Right palpus of male on outer side. Fig. 23. Left palpus of male from inner side in front. Fig. 24. Eyes from above and behind. Fig. 25. Genital aperture (female). Fig. 26. Ditto in profile.

Microneta beata, sp. n.

Fig. 27. Cephalothorax in profile. Fig. 28. Eyes from above and behind. Fig. 29. Left palpus of male, with portion of palpal organs on outer side. Fig. 30. Portion of right palpus from above and behind. Fig. 31. Genital aperture (female).

Diplocephalus castaneipes, Simon.

Fig. 32. Profile of cephalothorax (male). Fig. 33. Fore part of cephalothorax and eyes from above and behind (male). Fig. 34. Portion of right palpus from above and behind (male). Fig. 34A. Genital aperture (female).

Cornicularia cuspidata, Bl.

Fig. 35. Profile of cephalothorax and falces. Fig. 36. Eyes from above and behind. Fig. 37. Genital aperture. Fig. 38. Ditto in profile.

The natural length of each spider is indicated by the short vertical lines in the Plate.



PLATE A.

Proc. Dorset, N.H. & A.F. Club, Vol. XXVII, 1906. 3. 10. 13. 19. ſ 18. 20. 22 23. 27. 25. 29. 31. **30**. ţΙ 28. 34.A **35**. 36. **38** Digitized by O.Pickard-Cambridge, del?

Mr. H. W. Freston, of Westfield, Poynton, Cheshire; four by Mr. William Falconer, of Slaithwaite, near Huddersfield, Yorkshire; and one by Mr. Falconer in Yorkshire and Epping Forest; and Dr. Jackson at Hexham and Keswick. These are all included in the following lists; and descriptions of the new species are also added. I must here express my thanks to some other friends for many specimens or collections of spiders received during the past year; among them particularly the Rev. J. H. Bloom, Whitchurch, near Stratford-on-Avon; Mr. W. Ruskin Butterfield, of St. Leonard's-on-Sea; Mr. H. Donisthorpe, of 58, Kensington Mansions, London; Mr. Claude Morley, of Ipswich; Mr. G. F. Steward, of the Lower Close, Norwich; Mr. J. H. Oliver, of Bradford, Yorkshire; Mr. James Waterston, of Edinburgh (from whom I received a small, but very interesting, collection from the Island of St. Kilda); and Mr. Robert Godfrey (also of Edinburgh), who sent to me, among others, a small collection from the Orkneys.

LIST OF NEW AND RARE ARACHNIDA.

ORDER ARANEIDEA.

Family DRASSIDÆ.

Drassus pubescens, Thor.

Both sexes in the adult state were found at Swanage June 29, 1905, by Dr. A. Randall Jackson, M.D., a rare species, but widely distributed.

Prosthesima pedestris, C. L. Koch.

Adults of both sexes, Studland, June, 1905, Dr. A. R. Jackson.

74 ON SOME NEW AND RARE BRITISH ARACHNIDA.

Gnaphosa lugubris, C. L. Koch.

An adult male, found June 29, 1905, at Swanage by Dr. A. R. Jackson.

Agroeca proxima, Cambr.

Adult females, Weston-super-Mare, Somerset, found by the Rev. J. H. Bloom, Whitchurch, Stratford-on-Avon.

Agroeca inopina, Cambr.

Immature examples, Swanage, June, 1905 (Dr. A. R. Jackson).

Agroeca gracilipes, Bl.

Examples of this species were found at Weston-super-Mare by the Rev. J. H. Bloom.

Micaria scintillans, Cambr.

An adult female, Dr. A. R. Jackson, at Portland, June, 1905; rare and local.

Liocranum domesticum, Wid.

Both sexes, some in the adult state, Dr. A. Jackson Studland, June, 1905.

Family DICTYNIDÆ.

Dictyna pusilla, Westr.

Adult females of this rare and local spider, Bloxworth, July 2, 1905, Dr. A. R. Jackson.

Episinus lugubris, Simon. Fig. 2.

Episinus lugubris, Sim. Arachn. de France, tom. V., p. 42.

truncatus, Walck.-Cambr., Spid. Dors., p. 80, ad partem. (See note on this species, postea p. 83.)

Family THERIDIIDÆ.

Theridion impressum, L. Koch.

A male and females in the adult state, Bloxworth Heath, Dr. A. R. Jackson, June 30, 1905. This is only the third recorded occurrence of this spider as a British species. In June, 1904, it was found by Dr. Jackson at Warmwell (Proc. Dors. N.H. and A.F. Club, Vol. XXVI., p. 40). It is closely allied to the common *Theridion sisyphium*, Clerck, and has probably been overlooked on that account, especially as it closely resembles at first sight, pale or washed out examples of that usually handsome spider.

Phyllonethis lepida, Walck.

An adult female from the Island of St. Kilda, Mr. James Waterston, of Edinburgh, 1905.

Pholcomma gibbum, Westr.

Adult males of this very distinct little species were received from Mr. W. Ruskin Butterfield, Curator of the Hastings Museum of Natural History.

Crustulina sticta, Cambr.

Adult females, Studland, Dr. A. R. Jackson, July 2, 1905.

Laseola dissimilis, Cambr. Fig. 1.

An adult female, Portland, Dr. A. R. Jackson, June, 1905. The male of this species was described in 1905 (Proc. Dors. N.H. and A. Field Club, Vol. XXVI., p. 58, Pl. A, Figs. 6, 7, 8), as new to science. The present record is the first of the female of this species. (See postea, p. 84.)

Linyphia furtiva, Cambr.

Numerous examples of both sexes in the adult state, Bloxworth Heath, Dr. A. R. Jackson, June 30, 1905.

Leptyphantes cristatus, Menge.

An adult male received from Ireland (county of Down).

Bathyphantes spretus, sp. n. Figs. 4-7.

An adult female, found at Watton, Norfolk, by Mr. H. W. Freston, of Westfield, Poynton, Cheshire; a very distinct species. See description postea, p. 85, and Pl. A, Figs. 4, 5, 6, 7. By the kindness of its finder I am enabled to give a description and figure of this spider.

Tmeticus affinis, Blackw.

Anglia Hancockii, F. P. Smith, Journal Quekett Microscopical Club, ser. 2, Vol. 9, No. 55, p. 247, Pl. 16.

An adult male, found by Mr. Thomas Hancock, of Stechford, was considered to be the type of a new genus and species (vide reference above). It appears, however, to be Neriene affinis, Bl., the type of the genus Tmelicus, Menge.

Tmeticus fortunatus, Cambr.

An adult example of the male, found on iron railings, Bloxworth Rectory, by myself on June 10, 1905. The female has not yet been recorded; and this is only as yet the fourth recorded example of the male.

Tmeticus reprobus, Cambr.

Adults of both sexes, Weston-super-Mare, Rev. J. H. Bloom; and also received from Mr. Robert Godfrey from the Orkneys—a widely dispersed, but local spider.

? Tmeticus adeptus, sp. n. Figs. 8-11.

An adult female, Leeds, Mr. W. Falconer, 1905. When a satisfactory sub-division of the rather heterogeneous group now formed by this group is effected, it seems certain that the present distinct species will find a place elsewhere than the present.

Maro, Gen. nov. (For characters of this genus see postea, p. 86.)

Maro minutus, sp. n. Figs. 12-18.

An adult female of this minute spider was received from near Huddersfield from Mr. W. Falconer) in May, 1905. It is apparently allied to *Tmeticus*, but possessing some characters which seem to prevent its entering even into that very elastic generic fold, I venture to make it the type of a fresh group. Wherever it may eventually find a resting place, its small size and other characters mark it as a very distinct species. Its total length is no more than $\frac{3}{4}$ ths of a millimetre.

Microneta passiva, sp. n. Figs. 22-26.

Adults of both sexes near Huddersfield, Mr. W. Falconer, 1902.

Microneta territa, sp. n. Figs. 19-21.

Adult females near Huddersfield, Mr. W. Falconer, 1902 and 1903.

Microneta beata, sp. n. Figs. 27-31.

An adult example of each sex, Leeds, W. Falconer, 1901; an adult male, Epping Forest, W. Falconer, 1903; and also an adult male, Keswick and Hexham, Dr. A. R. Jackson, 1906.

Syedra pholcommoides, Cambr.

An adult female, Leeds, W. Falconer, 1905.

Gongylidium distinctum, Sim.

An adult example of each sex, found by Mr. J. C. H. Smith near Blackpool in 1905, has been reported to me by Dr. A. R. Jackson, who has had an opportunity of examining the specimens.

78 ON SOME NEW AND RARE BRITISH ARACHNIDA.

Erigone longipalpis, Sund.

An adult male, Weston-super-Mare, 1905, Rev. J. H. Bloom.

Erigone promiscua, Cambr.

An adult male, Newcastle, County of Down, Ireland; also several males from near Hastings, Sussex, Mr. W. R. Butterfield, 1906; and adults of both sexes from the Island of St. Kilda, Mr. James Waterston, 1905.

Metopobactrus prominulus, Cambr.

Adults of both sexes, Studland, July, 1905, Dr. A. R. Jackson.

Tapinocyba præcox, Cambr.

An adult female, in a nest of an ant (Formica sanguinea), Mr. H. Donisthorpe, Wellington College, 1905.

Wideria melanocephala, Cambr.

An adult of each sex of this rare species, Studland, Dr. A. R. Jackson, July, 1905.

Prosopotheca monoceros, Wid.

An adult male, Weston-super-Mare (Rev. J. H. Bloom), and adult females from Hexham and Southport, Dr. A. R. Jackson. A rare spider.

Cornicularia cuspidata, Bl. Figs. 35-38.

An unusually developed example of the female received from Mr. J. H. Oliver, Bradford, Yorkshire.

Tigellinus saxicolus, Cambr.

Adults of both sexes, Swanage, Dr. A. R. Jackson, July, 1905. A rare and local species.

Family EPEIRIDÆ.

Singa pygmæa, Sund.

Stratford-on-Avon, Rev. J. H. Bloom.

Epeira inconspicua, Sim.-Kulcz.

Epeira Westringii, Thor.-Cambr., Spid. Dorset, p. 260.

The example under consideration was determined by the late Dr. Thorell to be the male of his *Epeira Westringii*. Professor Kulczynski (of Cracow) has lately gone fully into the subject of this and other closely-allied species. (Bull. de l'Acad des Sciences de Cracovie, March, 1905, pp. 231-250, Pl. VII.) From this it appears to me that the spider I have hitherto thought to be *E. Westringii*, Thor. (loc. cit.) is *E. inconspicua*, Sim.-Kulcz. It is nearly allied to, but quite distinct from, the common *E. cucurbitina*, Clerck.

Family THOMISIDÆ.

Oxyptila Blackwallii, Sim.

Adult females, with their egg-sacs, were found under stones at Swanage at the end of June, 1905, in some abundance by Dr. A. R. Jackson.

Oxyptila flexa, Cambr.

An adult female, Suffolk, Mr. Claude Morley, 1904.

Philodromus fallax, Sund.

Wallasey, Cheshire, Dr. A. R. Jackson.

Family SALTICIDÆ.

Attus æquipes, Cambr.

An adult male of this local and rare species was found by myself on the wall of Bloxworth Rectory, June 23, 1905.

Hasarius Adansonii, Sav.

Adults of both sexes; Botanic Gardens, Edinburgh, Mr. Robert Godfrey, 1905. Heaton Mersey, Cheshire, Rev. J. H. Bloom, 1905.

ORDER PHALANGIDEA.

Sclerosoma Romanum, L. Koch.

St. Leonard's-on-Sea, Sussex; Mr. Ruskin Butterfield, under dead sticks and other débris, 1905. A rare and local species.

ORDER CHERNETIDEA.

Family CHELIFERIDÆ.

Chelifer subruber, Sim.

Examples received from Mr. H. Donisthorpe, by whom they were found in heaps of rubbish at Queenborough in 1905.

Chernes dubius, Cambr.

Received, among other species, from Mr. Robert Godfrey, by whom they were found at Craill, Scotland.

Obisium maritimum, Leach.

Loch Fyne, Scotland, Robert Godfrey, 1905. A rare and local species. Mr. Godfrey also sent to me from Craill, Scotland, the following species of this Order:—

Chthonius Rayi, L. Koch.

,, tetrachelatus, Preyss.

Obisium muscorum, Leach.

Chelifer Latreillii, Leach.

Chiridium museorum, Leach.



ON SOME NEW AND RARE BRITISH ARACHNIDA. 81

LIST OF THE ABOVE ARACHNIDA.

(With References to Page and Plate.)

Drassus pubescens, Thor.	p. 73.	
Prosthesima pedestris, C. L. Koch.	p. 73.	
Gnaphosa lugubris, C. L. Koch.	p. 74.	
Agroeca proxima, Cambr.	p. 74.	
,, inopina, Cambr.	P· 74·	
,, gracilipes, Bl.	P. 74.	
Micaria scintillans, Cambr.	P. 74.	
Liocranum domesticum, Westr.	P• 74•	
Dictyna pusilla, Westr.	P· 74·	
Episinus lugubris, Sim.	P. 74.	Fig. 2.
,, truncatus, Walck.	P. 74.	Fig. 3.
Theridion impressum, L. Koch.	p. 75.	0 0
Phyllonethis lepida, Walck.	P. 75.	
Pholcomma gibbum, Westr.	P. 75.	
Crustulina sticta, Cambr.	p. 75.	
Laseola, dissimilis, Cambr.	p. 75.	Fig. 1.
Linyphia furtiva, Cambr.	P. 75.	
Leptyphantes cristatus, Menge.	p. 76.	
Bathyphantes spretus, sp. n.	p. 76.	Figs. 4, 5, 6, 7.
Tmeticus affinis, Blackw.	p. 76.	
,, fortunatus, Cambr.	p. 76.	
,, reprobus, Cambr.	p. 76.	
,, adeptus, sp. n.	p. 76.	Figs. 8, 9, 10, 11.
Maro minutus, sp. n.	p. 77.	Figs. 12, 13, 14, 15,
		16, 17, 18.
Microneta passiva, sp. n.	p. 77.	Figs, 22, 23, 24, 25,
		26.
" territa, sp. n.	p. 77.	Figs. 19, 20, 21.
,, beata, sp. n.	p. 77.	Figs. 27, 28, 29, 30,
·		31.
Syedra pholcommoides, Cambr.	p. 77.	

82 ON SOME NEW AND RARE BRITISH ARACHNIDA.

Gongylidium distinctum, Sim.	P· 77·	
Erigone longipalpis, Sund.	p. 78.	
" promiscua, Cambr.	p. 78.	
Diplocephalus castaneipes, Sim.	p. 78.	Figs. 32, 33, 34,
		34A.
Metopobactrus prominulus, Cambr.	p. 78.	
Tapinocyba, præcox, Cambr.	p. 78.	
Wideria melanocephala, Cambr.	p. 78.	
Prosopotheca, monoceros, Wid.	p. 78.	
Cornicularia cuspidata, Bl.	p. 78.	Figs. 35, 36, 37, 38.
Tigellinus saxicola, Cambr.	p. 78.	
Singa pygmæa, Sund.	p. 79.	
Epeira inconspicua, Sim.	p. 79.	
Oxyptila Blackwallii, Sim.	p. 79.	
" flexa, Cambr.	p. 79.	
Philodromus fallax, Sund.	p. 79.	
Attus æquipes, Cambr.	p. 79.	
Hasarius Adansonii, Sav.	p. 80.	
Sclerosoma Romanum, L. Koch.	p. 80.	
	,	
Chelifer subruber, Sim.	p. 80.	
Chernes dubius, Cambr.	p. 80.	
Obisium maritimum, Leach.	p. 80.	
" muscorum, Leach.	p. 8o.	
Chthonius Rayi, L. Koch.	p. 80.	
,, tetrachelatus, Preyss.	p. 80.	•
Chelifer Latreillii, Leach.	p. 80.	
Chiridium museorum, Leach.	p. 80.	

For synonyms and other information respecting the above Arachnida see—

For Araneidea—Spid. Dors., 1881, and Papers subsequently published in Proceedings Dors. N. H. and A. Field

Club, 1882-1905. Also List of British and Irish Spiders, 1900 (published by Messrs. Sime and Co., Dorchester, Dorset).

PHALANGIDEA—Monograph of British Phalangidea, Proc. Dors. N.H. and A.F. Club, Vol. XI., 1890.

CHERNETIDEA—Monograph on the British species of Chernetidea or False Scorpions, l.c., Vol. XIII., 1892.

NOTES AND DESCRIPTIONS OF SOME OF THE ABOVE.

Episinus lugubris, Sim. Fig. 2.

I have long suspected that under the name *Episinus truncatus*, Walck., two species were mixed up among our British specimens. A close examination of many examples both from Dorset and other parts confirms this. The two species are very nearly allied, and the same general remarks and description would apply fairly to both, but, so far as my own observations go, the chief tangible distinction is in the form of the palpi in the male; the structure of the palpal processes at their apex differs decidedly. (See Pl, A., Figs. 2, 3.) The general character which has been relied upon for their separation—that is, the larger size and darker hue of *E. lugubris*—I have not found reliable. It is true that the largest and darkest specimen I have ever met with is undoubtedly of this species; but then I have others smaller than even the general run of *E. truncatus*, and quite light coloured.

E. truncatus, Walck.-Blackwall, has been recorded, I believe, as containing one species only—E. lugubris, Sim. There, however, is no doubt but that we have the two in Britain (truncatus, Walck., and lugubris, Simon), and perhaps about equally distributed. I have had types from Mons. Simon, for comparison in deciding which is Walckenäers' and which is Simon's species.

84 ON SOME NEW AND RAKE BRITISH ARACHNIDA.

I have met with *E. lugubris* both at Swanage and Bloxworth, and Dr. A. R. Jackson has also found it in both these localities, as well as in Devonshire. This is the first record of both species as British.

Laseola dissimilis, Cambr. Fig. 1.

- Adult female, length 11 length nearly (2.5 mm.).

The male of this species was described as new to science in Proc. Dors. N.H. and A.F. Club, Vol. XXVI., p. 58, 1905, Pl. A, Figs. 6. 7, 8. The female resembles the male in general appearance and characters. The eyes in the female sex, however, are more closely grouped together, there being a less interval between the hind-central and hind-lateral eyes, and the central quadrangle is less broad, in proportion, in front compared to the hinder side. The colours in the female were also richer, though this perhaps arose from the male having more recently performed the final moult of its skin, while the female had evidently come to its full colours, the cephalothorax being of a bright orange brown, and the legs of a clearer orange, except the tibiæ of the first pair and the tibiæ and femora of the first two pairs, which are suffused with a darker yellow brown. The tibiæ also of the fourth pair are similarly suffused, most strongly at the fore extremities. The height of the clypeus is about one and a-half times that of the transverse diameter of the ocular area. The caput is furnished with coarse hairs or bristles like the male, but not in so marked a degree, and the falces (which are weak), with the maxillæ, have also numerous bristly hairs at their extremities.

The abdomen is large round-oval, and very convex also. Its upper side is thickly covered with minute impressed punctures and coarse hairs, and its colour is brownish black. The form of the genital aperture is very characteristic and distinctive.

One example of the female was found at the beginning of July, 1905, by Dr. A. R. Jackson in the Isle of Portland, in the same locality as that in which the male was found in June, 1904.

Bathyphantes spretus, sp. n. Figs. 4-7.

Adult female, length slightly over 1 line.

Cephalothorax, uniform dark yellow-brown; ocular area slightly prominent; lateral marginal impressions at the caput slight; height of clypeus (which is a little impressed beneath the fore-central eyes) about equal to half that of the facial space.

Eyes on blackish spots in two transverse rows, reaching across the whole width of the caput; posterior row very nearly straight, both rows, very slightly and about equally curved, in opposite directions; hind-central pair larger than the hind-laterals, but nearer together than to these; lateral pairs each on a strong tubercular eminence; fore-centrals on a slight tubercle, and separated by half a diameter's interval.

Legs long, moderately strong, of a dull pale yellowish hue, 1, 2, 4, 3, furnished thinly with hairs and spines on the tibiæ; none on the metatarsi of the first and second pairs.

Falces long, tapering, and a little divergent towards their extremity; colour yellowish-brown.

Maxillæ and labium similar in colour to the falces.

Sternum dark brown.

Abdomen oval; upper side pale dull yellowish-brown, darker on the sides and underneath, with traces of a longitudinal central darker stripe, and marked on the hinder part with a series of several transverse pale angular markings or chevrons. Probably in fresh specimens the colour and markings would be much better defined.

The genital process and aperture are large, and of a very distinct and characteristic form.

A single example was received from Mr. Freston, by whom it was found at Watton, in Norfolk.

Tmeticus adeptus, sp. n. Figs. 8-11.

Adult female, length 1-10th of an inch (2.05 mm.).

Cephalothorax of ordinary form; colour yellow-brown, marked irregularly with deep blackish brown, but least so on the hinder

part of the caput, and most on the clypeus and ocular area. The profile line from the fore-central eyes to the hinder margin forms a pretty nearly even-curved line; height of clypeus nearly about half that of the facial space.

Eyes in two very nearly equal and nearly equally-curved transverse rows. The convexity of the slight curve of the hinder row directed backwards, that of the front row forwards. The fore-laterals appear to be rather the largest. The hind-centrals are a little further apart than from the hind-laterals, and the fore-centrals are separated by a diameter's interval from each other, and rather less from the fore-laterals. Those of each lateral pair are seated a little obliquely on a slight tubercular eminence. The four central eyes form a square, whose fore-side is shortest.

Legs moderately strong, rather short, pale yellow, suffused with darker brown on the upper part of the femora and on the tibiæ of the first and second pairs; these are furnished with hairs and a single short slender bristle near the fore-extremity on the upper side of the tibiæ, another near the hinder end, and one on each of the genual joints.

Falces rather long, strong, and slightly divergent; colour like that of the cephalothorax, strongly marked in front, longitudinally, with deep blackish brown.

Maxillæ, labium, and sternum deep black-brown.

Abdomen black, very thinly furnished with short hairs; spiracular plates pale yellow-whitish; genital aperture simple, but very distinct and characteristic.

Received from Mr. W. Falconer, by whom it was found near Leeds.

Gen. nov. MARO (nom. propr.).

Cephalothorax oval, longer than broad, obtuse in front; profile line regularly convex; marginal lateral impression at caput very slight, broadly, but not deeply excavated in hinder slope.

Eyes rather large and grouped closely together in form of a regular semi-circle; lateral and hind-centrals of nearly uniform

size; fore-laterals, if anything, slightly largest; each lateral pair slightly obliquely seated on a common low tubercular eminence; height of clypeus less than half that of the facial space.

Legs moderate in length and strength; not very unequal in length, 1, 4, 2, 3, thinly clad with hairs only, excepting two or three slender erect bristles on the femoral and tibial joints; tarsi and metatarsi of equal length.

Falces strong, straight, vertical, moderate in length, conical; teeth on inner extremity very minute.

Maxillæ moderate in length, strong, a little bent, and leaning over the labium.

Labium short, its height half the length of its width, and its upper margin a little flat-rounded.

Sternum larger than broad, heart-shaped; its anterior margin pretty squarely truncate; its posterior extremity a little drawn out between the coxæ of the fourth pair of legs and truncate, its breadth there being equal to the breadth of the coxæ.

Abdomen oval, projecting considerably over the base of the cephalothorax, thinly furnished with hairs; the genital aperture and process placed as nearly as possible at the middle between their fore and hinder extremities; spinners very short, the lower pair strongest, but not much shorter than the upper pair, all placed in a circular slight pit or cavity.

Maro minutus, sp. n. Figs. 12-18.

Adult female, length rather less than a millimetre, or about 1-25th of an inch. General colour pale dull yellowish.

The eyes are all on black spots. The hinder row has the convexity of its very slight curve directed backwards, and the interval between the central pair is greater than that between each and the hind-lateral eye next to it; the fore-centrals are almost contiguous to each other, as well as to the fore-laterals. The fore-centrals with the laterals thus form an almost unbroken semi-circle.

The genital process is large and prominent, and of very characteristic form; its backward position is also unusual.

A single example of this very remarkable and excessively minute spider was received from Mr. W. Falconer, by whom it was found near Huddersfield in 1905. It is evidently allied to *Tmeticus* (*Centromerus*), &c., but presents decided differences, which seem to prevent its being relegated even to that heterogeneous group.

Microneta territa, sp. n. Figs. 19-21.

Adult female, length 1 line.

Cephalothorax very broad and rounded behind; tapering and roundly obtuse in front; lateral marginal impressions at the caput moderate; impression in profile line between the caput and beginning of the hinder slope strong; height of clypeus about equal to half that of the facial space. The colour of the cephalothorax is dark yellow-brown.

Eyes in normal position; the hind-centrals are separated from each other by a larger interval than from the hind-laterals—about an eye's diameter. The posterior row has the convexity of its curve directed backwards, the anterior row is very nearly straight, and its eyes are separated by very small and equal intervals, being almost contiguous to each other—the forecentrals appear to be larger than usual. The central trapezoid is longer than broad, and its fore side shortest.

Palpi have the digital joints of normal form.

Legs moderate in length and strength, 4, 1, 2, 3, yellow-brown, strongly suffused with deep brown, on the tibiæ and metatarsi, especially of the first and second pairs; they are furnished with hairs and a very few erect slender bristles, such as generally characteristic of this genus.

Falces moderately long and strong, and of a darkish yellow-brown colour.

Maxillæ and labium yellow-brown.

Sternum deep yellow-brown.

Abdomen blackish or deep black-brown, very thinly clothed with hairs; spinners dull yellowish; genital aperture and process prominent, and of very characteristic form.

This species was received from Mr. W. Falconer from Huddersfield and Hexham in 1902 and 1903, and appears to be a very distinct one of the *M. viaria* group.

Microneta passiva, sp. n. Figs. 22-26.

Adult male, length 1 line.

This is also of the *M. viaria* group, but rather smaller than that species.

The cephalothorax is very broad, almost round behind and tapering quickly to an obtuse, but rather truncate termination in front; the lateral marginal impressions at the caput are obsolete, and the profile line has a considerable dip or impression between the occiput and the beginning of the hinder slope. The colour of the cephalothorax is rather orange yellow-brown, marked with blackish brown, on the sides, margins, and on the caput behind the eyes. The height of the clypeus is nearly two-thirds of that of the facial space.

The general position of the *eyes* is normal; the interval between those of the hind-central pair is rather less than that between each and the hind-lateral eye next to it.

Legs moderate in length and strength, 4, 1, 2, 3, of a bright orange-yellow; the tibiæ and metatarsi, especially of the first two pairs, suffused with blackish brown.

Palpi rather strong; cubital and radial joints short, the former strongest, and has the two characteristic slender bristles towards its fore extremity on the upper side directed forwards, the posterior (or shortest) bristle being slightly more than half the length of the longer one. The digital joint is large and the palpal organs highly developed. At about the middle, near the outer side, the digital joint is strongly and angularly protuberant. The palpal organs are very prominent, but their structure, although the different parts differ in form from others nearly allied, can only be satisfactorily given by magnified drawings.

The falces are normal and similar in colour to the cephalothorax.

The Maxillæ, labium, and sternum are yellow-brown, marked irregularly with deep blackish brown. The sternum is short, broad, nearly round behind, its termination slightly and abruptly produced between the coxæ of the fourth pair of legs.

Abdomen oval, black, thinly clothed with coarse hairs.

The *female* is of about the same size, and resembles the male in colour and general characters, and her palpi have the digital joint of normal form; that is, not protuberant or like the undeveloped digital joint of a male spider.

The form of the genital aperture and process is characteristic, the latter very prominent in profile.

A female of this spider was found in 1891 near Weymouth by C. O. Pickard-Cambridge, females in 1901 by Dr. A. R. Jackson at Hexham, and others of the same sex at Huddersfield by Mr. W. Falconer in 1902, with which latter females was the only male I have seen.

Microneta beata, sp. n. Figs. 27-31.

Adult male, length rather less than I line.

This species belongs to the *M. rurestris* section of the genus *Microneta*, and resembles it in its slender form and other general characters. The cephalothorax is brown, marked with darker brown; and there is little or no lateral impression on the margins at the caput.

The legs are orange-yellow, at times suffused on the tibiæ and metatarsi of the first and second pairs with brownish. The height of the clypeus is about equal to half that of the facial space, impressed close to the eyes, and prominent at the lower margin. The eyes are normal; the four centrals form a trapezoid, whose length is rather greater than its breadth, and its fore-side shortest. The space between the hind-centrals is less than that between each and the lateral eye next to it.

The falces have not the protuberant form near the base in front similar to those of *M. rurestris*.

The palpi have the fore extremity of the radial joint broad and slightly obtusely pointed, with a small prominent point at its outer side. From this point to the hinder extremity of the joint is a series of minute tubercles, each bearing a slight bristle; the cubital joint has close to its fore extremity on the upper side two prominent bristles near together and directed forwards. The shortest and least strong of these two bristles is less than half the length of the other, which is tapering and longer than the joint itself. The digital joint is of moderate size and a little prominent near the middle on its outer side; the palpal organs complex, in general appearance like others of this genus. The paracymbium, or large irregularly formed, somewhat crescent-shaped process close to their hinder extremity on the outer side, is of characteristic shape.

Abdomen jet black, slender, oval.

The *female* is slightly larger and of stouter build than the male, but resembles that sex in general characters. The form of the genital aperture is characteristic, but somewhat similar to that of *M. rurestris*. (See Fig. 29.)

An example of the male of this species was received from Mr. W. Falconer from Leeds in 1901; one of each sex from Dr. A. R. Jackson from Hexham in 1902 (and also a male in 1906); as well as a male from Epping Forest (Mr. W. Falconer) in 1903.

Diplocephalus, castaneipes, Sim. Figs. 32-34A.

Plæsiocrærus castaneipes, Simon, Arachnides de France, tom. V., p. 768.

Although very nearly allied to *D. fuscipes*, Bl., this little spider may easily be distinguished by a different form of the caput, and the structure of the palpi of the male. When looked at from above and behind the outline of the elevation of the caput has on its sides no lateral impression, being quite straight, whereas

92 ON SOME NEW AND RARE BRITISH ARACHNIDA.

in *D. fuscipes* the outlines are strongly impressed; also the profile of the upper part of the caput is more convex, and the trapezoid formed by the four central eyes is longer. There are also differences in the palpi, which are more easily delineated than described. The females differ in the form of the genital aperture, but resemble the male in colour and size.

This very interesting little species was found in fair abundance on Snowdon, in North Wales, by Dr. A. R. Jackson in 1905, and has not been before recorded as British.





The Church Wells of Porset.

Returns of bells as of other church furniture were required in 1547 and 1552, and it has been assumed by some who have never investigated the contents of our towers that such orders as were given respecting the disposal of the bells in the latter year were effectual. Mr. Dunkin's list of Cornwall inscriptions shows that in eleven churches in that county there yet remain two or more of the bells that hung in the towers at the time of this proclamation, though, of course, since 1549 a vast number have passed through the foundries.

The same result is found in other counties, or rather a more striking result, as may be seen from Mr. Ellacombe's labours in Devon, Somerset, and Gloucester, or my own in Suffolk and Cambridgeshire. Near me are two small parish churches, at Athelington and South Elmham S. Peter's, in which hang the same three bells which are named in the 1553 inventories. Indeed, these inventories show most conclusively that the command was inoperative. It would seem that a suggestion was made that the removal of clappers would serve the same purpose as the removal of bells, and cause less disturbance. At any rate, according to Strype, two Devonshire gentlemen, Champion and Chichester, were allowed on request a grant of clappers, and, according to M1. Ellacombe's suggestion, this may have been done by them to keep the bells in the towers.

In Dorset there are at least 34 churches in which more than one ante-Reformation may be seen, and there are a few more in which blank bells may be regarded as of equal antiquity. I append a list of the 34:—

Little Bredy.
Litton Cheney.
Swyre.
Broadwindsor.
Fordington.
Winterborne Came.
Chesilborne.

Puddlehinton.
Tolpuddle.
Alton Pancras.
Hazelbury Bryan.
Nether Cerne.
Sydling S. Nicholas.
Osmington.

Stower Provost.
Fontmell Magna.
Hammoon.
Rampisham.
Nether Compton.
Chetnole.
Holnest.
Wambrook.
Almer.

Bloxworth.
East Morden.
Sturminster Marshall.
Winterbourne Anderson.
Gussage All Saints.
Blandford S. Mary.
Charlton Marshall.
Shapwick.

With regard to the Knowlton tradition before-mentioned, I venture to insert the following:—

"In walking from Blandford to Damerham in September, 1852, I shaped my course by Horton, with a view to seeing Monmouth's ash on Horton Heath. Having reached the roadside inn, I found that the ash was four miles distant, and, not having time to proceed thither, I waited at the inn. Whilst waiting I saw a small ruined tower at the distance of half-a-mile or so, and, on asking a man, found it was the ruin of Knowlton Church. He also told me that at a very distant period there was a very valuable bell in that tower, so much so that it excited the cupidity of some fellows, who planned to steal it, take it to the coast, and, having crossed the Channel, sell it in France. This, considering the loneliness of the church, could be no very difficult matter; but somehow, after they had got the bell out of the tower, they were discovered, pursued, and overtaken at the bridge of Sturminster Marshall, and, being unable to proceed further with it, they threw it into the Stour and made off. The Knowlton people let down ropes and pulled it up nearly within reach of hand, when down it went, without there being any apparent reason for the ropes breaking. A second and a third attempt were attended with the same result till, weary and dispirited, they gave it up. The old man said that there was a verse to the effect that

> 'All the devils in hell Could never pull up Knowlton bell,' "

This is in my Bell MS. A., ff. 75, 76 verso, and dated by me "December 27th, 1852, Worlington, Suffolk," the parish of which my father, who died in the previous year, had been rector.

I added: "The tale seems to me very pointless and incomplete, but see Hutchins!"

"There is a tradition current among some of the old people in the village that many years ago the bellringers (or a party) of this village went secretly and removed one of the bells from the old ruined church at Knowlton, which is distant from this village about nine miles, across Kingdown by the right of Badbury Rings, and about three miles from the ancient old town of Cranborne.

They were successful so far, but, as there came a fall of snow during the expedition, they were afraid of being discovered by their tracks, and to baffle pursuit in case of discovery they reversed the shoes of the horses on their return. Arriving at the old bridge of White Mill, which is distant from Sturminster Church about half-a-mile, they sent on two of their party in advance to the village to see that the course was clear. As they were so long gone the remaining party thought that something was amiss and that they were discovered, and, suspecting that the people of Knowlton were on their track, they, to dispose of the bell and put it out of sight, threw it into the River Stour, in a deep hole (now called Bell Hole or White Mill Hole). Hence the following doggerel:—

'Knowlton bell is a-stole
And thrown into White Mill Hole.'"

From Mr. A. Reeves.

What became of this bell subsequently it is difficult to say. Some say it was left in the river, and others that it was got out and put in Shapwick Church, and some think it was put in this church; but in Hutchins' History of Dorset (rev. edt.) it states that it was recovered, and was for some years in the possession

of a Mr. Compton at Horton. I paid a visit to this old church at Knowlton a few years ago; it is now a complete ruin, tower and church being roofless, but the greater part of the walls are standing (and from what I can remember there is a massive wall between nave of church and chancel, with a small Norman arch, round-headed, also remains of mullions and doorways, the tower being perfect, excepting that it is roofless and floorless). The whole is enclosed within a rampart, and near by are some fine yew trees and barrows, no houses being anywhere near, excepting a farmstead, which apparently is not very ancient. man was working in a field near by (a native of the neighbourhood), and he related the same story with reference to the bell, saying that some people from Sturminster came and took them I have been told by some of the old inhabitants of 25 years ago that the names of two of the ringers at the time were Hurdle and Barfoot, two well-known names in this parish.

In the case of the treble at Lyme Regis the spelling in my MS. is the usual mistaken form, "Brittania." The words are a quotation from Akenside (Odes, Book I., No. 8, lines 79, &c.).

"O fair Britannia! hail! with partial love
The tribes of men their native seats approve,
Unjust and hostile to each foreign fame;
But, when for gen'rous minds and manly laws
A nation holds her prime applause,
There public zeal shall all reproof disdain."

On this Mr. Thomas Hollis (Memoirs, p. 52) observed: "For want of information at what period Dr. Akenside wrote his verses it is best to say nothing about the application of them."

The whereabouts of Anthony Bond's foundry still eludes us, for the work at Wimborne Minster in 1629 was evidently done on the spot. Perhaps the accounts of other parishes where his bells remain may throw a light on the subject.

APPENDIX OF DOCUMENTS AND NOTES COLLECTED BY W. MILES BARNES.

Early Chancery Documents 68/144.

A son is gaouse & is noble Sr le Channceller Dengletre Supplie humblement Robt Gildesburgh de Londres Brasyer q come Hugh Stokenynge viker de Lesglise de Whitech[urch] en le Mersshewodevale en le counte de Dors' ore tarde achata du dit Robt un couple des cloiches p une cteine some Dargent les queux cloiches le dit suppliant . . . la garde du dit viker p un an entier p les assaier sil fuissent covenables on non & ap's le fyn du dit an vient le dit suppliant au dit Viker & demanda . . . temps le dit Viker p sa faux son argent ymaginacioun enfeignant causes p auoir barre & desceiuez le dit Robt de p tie de son dit argent sumettant q les ditz cloiches ne furent ne convenables n'accordantz come il les garanta p quele cause le dit suppliant pfera defaire une obligacion de xl li a dit viker s condicion de lo mettre s lagarde arbitrement de Johan Scory de Taunton & Adam Buggeberd psone de lesglise de South Perot en mesme le counte ou sil deux ne pront venir adonques sar la garde du dit Adam Buggeberd taut soulement tonchant la dit matiere le quel agarde serroit faite deinz ctein temps le quel viker envoia p le dit Adam a quel temps il vient a dit Viker & demanda p oier les ditz cloiches sonnir & nulles defautes en mesmes les cloiches troua & s ceo le dit Adam dona juggement & agarde p le dit Rott

[The remainder of the bill relates entirely to the bond for £40, for which sum the vicar had sued the complainant.]

NOTE.—Adam Buggeberd was "parson" of South Perrott in 1370; he was dead in 1391.

TRANSLATION.

To his very gracious and very noble Lord, the Chancellor of England

Humbly beseecheth Robert Gildesburgh of London brass founder that whereas Hugh Stokenynge vicar of the church of Whitchurch in Marshwood Vale in the county of Dorset recently bought of the said Robert a couple of bells for a certain sum of money, which bells the said suppliant [left in] the keeping of the said vicar for a whole year in order to test them, whether they were suitable or not: and after the end of the said year the said complainant came to the said vicar and demanded his money: [at which] time the said vicar by his false imagination invented reasons for having deceived and kept the said Robert out of part of his money, alleging that the said bells were not suitable nor in accordance with his guarantee. Wherefore the said suppliant offered to enter into a bond for forty pounds with the said vicar under a condition that they should submit them to the award [and] arbitrament of John Scory of Taunton and Adam Buggeberd parson of the church of South Perrott in the same county or, if the two could not attend, then to the award of the said Adam Buggeberd alone, which award was to be made within a certain time. And the vicar sent for the said Adam and at that time he came to the said vicar and asked to hear the said bells rung and found no defects in the same bells; and thereupon the said Adam gave judgment and award for the said Robert.

The will of John Barber, bell founder, has been discovered by Dr. Tyssen, and will be published by the Wilts Record Society. Mr. F. J. Pope, who has inspected the original document, has kindly sent the following outline of its contents:—

It is dated on the Vigil of the Purification of the Virgin Mary, 1403, and the testator is described as "Johannis Barbor Brasier ciuis ciuitatis nove Sar." There are legacies to churches and institutions in New Sarum and Winchester, and for prayers for

the souls of the testator and of his father and mother. Brazen jars are left to several persons named. His tools and implements pertaining to his craft he left to Peter the brazier.

"Itm lego petro Brasier omia instrumenta mea et omes mensuras artificio meo ptin."

BELLS TO BE TAKEN DOWN IN THE CHURCHES.

From my lord protector & the counsell to my lord Previe seall.

After our right hartie comendacons to your lordshipp where the rebells of the countrye 6f Devonshyre & Cornwall have used the belles in every parishe as an instrument to sturr the multy-tude and call them together. Thinkyng good to have this occasyon of attempting the lyke hereafter to be taken frome them, and remembrying with all that by taking downe of them the Kyngs Ma^{tie} maie have some comoditie towards his great charges that waye, we have thought good to pray yo' good lordshipp to geve order for taken down the sayd bells in all the churches within those two counties, levyng in every churche one bell, the lest of the ryng that nowe is in the same, which maie serve to call the paryshoners to the sermone & devyne servis; in the doyng hereof we require yo' lordshipp to cause such moderacon to be used as the same may be done with as moche quietnes and as lytill force of the comon people as maie be

And thus we bid your lordshipp most hartely farewell

From Westm⁹ this xijth of September 1549

E. Somerset

W. Sanct John

T. Cant

W. Petre sy.

E. North

E Wotton

R Sadler

(Petyt M.S.S., No. 538, Vol. 46, fol.::465, quoted in Camden Society Proc., Vol. 1885, p. 73.)

From a paper in the handwriting of King Edward VI., entitled "A Summary of Matters to be Concluded," dated in the endorsement 1552, it appears that the King proposed to add to "the strength of the realme" by "the making of more & great ordnance of the Copar in the Tower and the Bel-metal."

Will in P.C.C. 53 Welles.

The will of John Myller of Sowthperrat, Dorset, dated 1 Oct. 1558 left "iiij" to dyght a bell for the chappell of Mosterne."

From Barons Depositions in the Court of Exchequer. Dated 3 Feb. 1573

In connection with an enquiry concerning the goods of the chapel at Plush William Tabott of Plush yeoman, aged 90, deposed

"That there were two belles belonging to the same chapple but he sayeth that nether he nor eny other by his pcurem' dyd not at eny tyme take awaye eny of the same belles but he sayeth they were stollen awaye at ij sondry tymes but by whom this depon' knoweth not but he sayeth that he was charged by the said John Myller wth the taken awaye of the same belles & that he this depon' & the saide John Myller were at varyaunce of the same belles."

Chancery Proceedings of Elizabeth's Reign. W. 4/54

Warren v. Lane. Dated 1601

The defendant in his answer states that about 20 or 21 years since John Knight & William Smith alias Shepherd, being then churchwardens of Loders, had agreed with William Purdye for a sum of £8 10° "for the new castinge of two crazed bells of the "said pishe to be by him new caste & made tuneable & agreable "wh the other bells . . . And thereupon the said Purdye

"did new caste the same two Bells But that for the same Bells "fell out not to be tuneable & agreeable according to the said contracte . . . so that the sayd pishion misliked of his "doinges therein." Actions at law on both sides followed a refusal to pay Purdye but the result is not stated.

Chancery Proceedings, 2nd Series 374/67. Dated about 1623.

Purdue n. Browne.

Plaintiff, George Purdue of Closworth, Somerset, bell founder, had for 20 years & upwards "used the trade & misterie of Bellfounder" in Somerset & other counties & had agreed for the new casting of certain bells at Martinstowne, Dorset, in order to make them tunable with the other bells there. Accordingly in April, 18 James I, plaintiff gave a bond for £80, for the true performance of the work, to John Gouldsey, Thomas Samwaies, & Thomas Jones alias Barlecorne all of Martinstowne, and the recasting had been completed in the following June. All or most part of the inhabitants of Martinstowne were well satisfied with plaintiff's work but Gouldsey, Samwaies, & Jones had refused to make any payment for the same & had placed the bond in the hands of Sir Rohert Browne.

Richard Devenish of Charleton Canvill alias Horethorne, Somerset, by his will dated 1633 and proved in P.C.C. in 1637 (Registered 60 Goare) left 40° to the reparation of the church & bells of Sidlin, Dorset, and a similar sum to the reparation of the church & bells of Yeatmister Dorset.

Court of Requests of Charles I. Bundle 39

Purdue v. Seward Dated 25 June, 16 Charles I [1640]

The plaintiff, Richard Purdue of Stoford, Somerset, bell-founder, had in Dec. 10 Charles I [1634] agreed with William

French of Halstock, Dorset, butcher, a churchwarden of Halstock, that the latter should at his own cost bring the great bell of Halstock to Stoford, where Purdue was to weigh the same & "to cast & make tuneable the sayd Bell in sound & harmony accordinge to art & musicke wth & unto the other bells of Halstock," French on his part agreeing to pay nine shillings for every "hundred casting" which the bell weighed. Also Purdue was within three months to make all the bells of Halstock "concordant & agreable in musick tune sound & harmony" & to allow French eighteen shillings towards carrying the bell from Stoford to Halstock & gave a bond of £20 for due performance of the work, guaranteeing to make good at his own charge any failure of the bell due to bad workmanship.

And in the same year [1634] Purdue entered into a further agreement with the said French & with William French of Halstock, yeoman, both being churchwardens of the parish, that the churchwardens should at their own expense bring to Stoford their second bell which Purdue was to weigh & make tuneable with the third bell, the churchwardens agreeing to pay twelve pence per lb. for any metal added up to 100 lbs. & Purdue promising to allow ten pence per lb. for any metal by which the bell should be reduced in recasting. Purdue was also to put a new staple to the third bell & gave the same guarantee as before and another bond of £20.

Plaintiff had also recast a bell for the parish of Yeovil, Somerset, under an agreement with Dr. Seward, the vicar, & the churchwardens, who had confederated with the churchwardens of Halstock in defrauding Purdue of the money due to him.

From Exchequer Bills & Answers. William & Mary. Dorset

No. 9.

In his bill, filed in Trinity term, 2 William & Mary, Joseph Hardy, churchwarden of Bothenhampton, sues Thomas Young,



1.-DUMB BELL GALLERY, KNOLE HOUSE.



2.-DUMB BELL.

the preceding churchwarden, Thomas Purdue of Closworth, Somerset, bellfounder, and others concerning a bell, formerly in the tower of Bothenhampton church, which had been carried away by some of the defendants. The bell weighed 700 lbs or 800 lbs and was worth £60.

Purdue answers that in June 1689 he had contracted with Young "for new casting of ye greatest bell or one of ye bells belonginge to ye parish church of Bothenhampton" at a cost of £12, half to be paid at the casting of the bell & the remainder six weeks after the work was finished, & 1° 2d for every pound of metal added to the bell. And afterwards Young "complained that some of ve brasses belonging to ve sayd bell & to ve other bells were defective" and desired Purdue to recast them also. When the bell and brasses were completed, (90 lbs of metal having been added to the bell), Young caused them to be carried to Bothenhampton, without however making any payment for the work done. Later Young stated that the parishioners refused to give the money & on being arrested & imprisoned for the debt, he requested the bellfounder to "hew the bell" & make it "flatter in tune hoping the parishioners would be pleased therewith." The bell was consequently again sent to Closworth where it now remains & Purdue declares his readiness to deliver it on payment of the money due to him.

An Ancient Dumb Bell at Knole House, Kent.

In the "Antiquary" for October, 1903, is a short but interesting article by Mr. C. Essenhigh Corke on an ancient dumb bell, from which, by permission of the author and editor, some extracts and, through the kindness of the latter, the illustrations are taken.

Some twelve years ago Mr. Corke was much puzzled by hearing the housekeeper at Knole speak of the Dumb Bell Gallery. He went to the attic, which bore this name; it "was

unfurnished and empty, excepting that in the middle of it stood a curious wooden machine resembling a windlass. A rope was wound round the middle of the roller, and at each end were four iron arms, each with a poise or ball of lead at each end. The rope formerly passed through a hole (which still exists) in the floor into the Leicester Gallery below. A person by pulling the rope in this gallery would cause the roller with the iron arms poised with lead to revolve at the first pull, and the impetus given would rewind the rope again, and so continue to wind and unwind at each pull, thus giving the same exercise as that of ringing a bell in a church tower, except that it was noiseless."

"The attic, or Dumb Bell Gallery, forms part of the additions made at Knole by Thomas Sackville, first Earl of Dorset, 1603-8, in Jacobean style of architecture, re-built upon the stone basement, which is fifteenth century work. This might suggest the approximate date of the machine," which is very old and decayed.

"The late Chancellor Ferguson, F.S.A., with whom I had much correspondence at this time, and to whom I sent a photograph and description of the machine, fully concurred with me as to the derivation of the name given to the smaller dumb bells, and Sir Henry Dryden, to whom he showed the photograph, attributed it to the seventeenth century, 'when bell-ringing was part of a gentleman's education and practice.' It was probably to train and keep in practice the arms for bell-ringing," as well as for exercise.

"John Northbrooke, in a treatise against 'Diceing and Dancing,' 1577, says: 'In the reign of Queen. Elizabeth the progress of building in London was like an inundation; it overflowed the ancient fields and vacant spaces within and around the city, so that tilt yards, shooting grounds, and race-courses were covered with streets and alleys, and thus the active civic sports were of a necessity in a great degree laid aside. As a substitute for these healthful exercises, young gentlemen were exhorted to labour in their chambers with poises of lead'—that is, to exercise with dumb bells."

ADDENDA ET CORRIGENDA.

Allington.—One service bell, inscribed "T. Mears of London fecit 1827; one call bell, inscribed "S. P. 1631. W"

Alton Pancras.—3rd: Possibly of the same type as Winterborne Monkton, &c. The cross seems to be the same as South Newton, Wilts, 5th. H. B. W.

Batcombe. -- 1st: Unknown founder.

Beaminster.—Treble bell: After "T. Bilbie" add "Senr." Tenor: The inscription ends with "fecit."

Bourton .- Bells lately added :-

- 2. Ring out the false, ring in the true.
- 3. Ring in the valiant man and free.
- 4. 1905. Edwardus vii R et I vivat R P. B.
- Good people all who hear me ring. Be faithful to your God and King. J. C. Sparrow M A Vicar. Thomas Miles Edgar Burpitt, churchwarden.
- 6. To the service of God and to the memory of their father and mother this bell is given by the children of Oliver Maggs and Louisa Maggs of Bullpits Bourton A D 1905. On all who dwell within my sound. May God's most holy peace abound.

Bradford Peverell.—The treble and tenor bells were given to the church in 1896, in which year the three ancient bells were re-cast. The whole peal was cast by Messrs. Mears and Stainbank, whose names and addresses are on each.

Bridport S. Andrew.—From the title omit "West Bay." Bridport S. Mary.

- Cast by John Warner & Sons London 1887. To the glory
 of God. Two bells were added and the peal completed in
 the Jubilee year of the reign of Queen Victoria 1887.
 E. J. L. B. Henslowe Rector, S. Whetham and J. W.
 Hartgill Churchwardens
- 2. Cast by John Warner & Sons London 1887 Jubilate Deo From the women of Bridport A.D. 1887.

- Recast by John Warner & Sons London 1887. Thomas
 Mears founder London 1843 This bell was added
 A.D. 1843 Robert Broadley Rector R. Tucker and E. S.
 Knight C.W.
- 4. Recast by John Warner & Sons London 1887 T.P. Anno Domini 1681. R D N D C W.
- Recast by John Warner & Sons London 1887 John Colfox Elias Punfield churchwardens Cast by Thomas Bayley, Bridgwater 1764
- Recast by John Warner & Sons London 1887 Thomas Mears founder London A.D. 1726 recast 1843 R. Tucker and E. S. Knight C.W.
- 7. Recast by John Warner & Sons London 1887 🗗 AD. 1630
- 8. Thomas Mears founder London The gift of J. Grancell and Joan his wife. Sing praises to God A.D. 1734. Recast 1843 R Tucker and E. S. Knight CW and recast by John Warner & Sons London 1887.

Broadwindsor.—4th: Crosz = Ellacombe's Somerset No. 1. By R. Norton or I. T., of Exeter. 5th: By Robert Norton, of Exeter, 15th century.

Buckhorn Weston.—6th bell: After "Shroton" read "Esq 1727. WKBF"

Cattistock.—The list of inscriptions is inverted, the description of the treble being last, instead of first.

Charminster.—Tenor (see Fig. 15). It seems to the writer that the inscription on this bell is not a bell founder's jumble, but an inscription by a founder engaged after the Reformation to cast the bell for the church, and who used this cryptic means of recording his own or his employer's adherence to the unreformed faith at a time when such an inscription, if plainly worded, would not have been allowed. He possessed a fount of mediæval black letter type, as well as a more modern fount, and he mingled both indiscriminately, and added a fleur-de-lis emblem and a symbol which was used at the time in manuscripts to represent S. With this light, on turning to the inscription (Fig. 15), it will be seen to read n M. S M. (?) M.

M B. M S or " • Maria, Sancta Maria, Ave Maria, Maria beata, Maria Sancta." W. M. B.

Tenor: May be as you suggest, but looks to me like a late (Elizabethan) jumble of stamps without meaning. A parallel as regards the abbreviations you suggest would be at Whitchurch, Warwickshire. I N R I A E M A G A P A = Jesus Nazarenus Rex Judeorum Ave Maria Gracia Plena. H. B. W.

Cheselborne.—2nd: Probably the same group as Winterborne Monkton. Cf. for the U, S. Newton and Wylye, Wilts. H. B. W. 3rd (Fig. 18): It will be noticed that the crowned monogram at the end of the inscription is that of S. Mary.

Cranborne.-For "seven" read "eight."

Durweston.—Treble: For "1880" read "1887." 3rd: For "1765" read "1766." 4th and 5th: Add final e to Prays and Fear.

Fordington.—5th (Fig. 11): The disused tenor at Wingrave, by John Danyell, c. 1450-1460, has lettering with crowned capitals, similar to that on this bell. Danyell probably inherited this fount of type from his predecessor Walgrave, who cast this bell 1430-1450; the shield gives his initials, and handed it on to Henry Jordan, who succeeded him.

Forde Abbey Chapel.—By Brasyer, of Norwich. No one knows how it came all the way into Dorset!

Frampton.—The following particulars relating to the church bells are taken from the Rolls of the Court Leet and Liberty of Frampton:—

Oct. 16. 1866. It was resolved that the Bells should be put in repair at a cost of £60 on ringing the first peal after the completion of the work a crack appeared in the tenor bell whore the inscription "Cast at the cost of Robert Browne Esquire L. C. 1694. Give thanks to God Almighty."

In the following Oct 1867 It was reported that the bells had been repaired & rehung the broken bell and another having been recast the whole at a cost of £97. 19 and that the new bells (the 2nd & tenor) had been inscribed with the doggrels reported in the foregoing list.

Gillingham.—2nd: For F read T. 3rd: Date 1726.

Halstock.—Treble: For I.B read L.B. 3rd: For "Io" read "Tho" and for V.K read W.K. 4th and 5th must be interchanged and for P.P read R.P. 5th: For "Come to" read "Com at" and after second W.F. add T.

Hampreston.—2nd: For "Rector" read "Rect" and add WK BF. 1738

Hazelbury Bryan.—3rd: A local type. For the cross cf. Ellacombe, Somerset 91. 2nd: Unknown.

Iwerne Minster.—To the list of bells add 4th: Give lavd to God I W 1618 5th: O be joyful in the Lord I W 1618

Kington Magna.—3rd: For "Left to right" read "right to left."

Maiden Newton.—5th: Possibly by John Barber, of Salisbury. Cf. Chittern and Norton Bavant, Wilts. Ellacombe, Somerset, Fig. 32. H. B. W.

Marnhull.—3rd: (Date) 1595

Melbury Bubb.—By John Kebyll, of London, c. 1460-1480.

Melcombe Bingham.—Both bells: Cf. Charlton Musgrove, Somerset (Ellacombe, Figs. 31, 107).

Milton Abbey.—The following particulars of the old bells of Milton Abbey are supplied by the vicar, the Rev. H. Pentin:—

Towards the end of the 18th century Joseph Damer, Lord Milton (Lord of the Manor of Milton Abbey) decided to pull down the old town of Milton. Mr. Harrison, a resident solicitor, put a difficulty in his Lordship's way by refusing to sell his lease, although he was offered three times its value. So the water crept around his premises. Mr. Harrison then entered an action against Lord Milton for flooding his house, and the lawyer won the case. A few days afterwards his Lordship went to London, and on his way to Blandford he heard the bells of the Abbey Church ringing. This he interpreted as a sign of parochial joy at his defeat and departure; and nothing would satisfy him but the sale of the offending bells. The bells were really ringing to commemorate Guy Fawkes' Day; it was the

5th of November. But the bells had to go, for Lord Milton, "the autocrat," had spoken; and his friend, the Dean of Norwich, had said that "bell-ringing caused much idleness and drinking." The great tenor bell, weighing 35cwt., was sold to Bath Abbey; two other of the bells were given to S. James' Church, Milton (one of which was cracked by a carpenter striking it with a hammer, at a wedding, just before it was hung); but what became of the other Abbey bells is not known. There is a record, however, that, when the parishioners saw their old bells carted away, they stood at their house-doors weeping.

Motcombe.—Treble: For "Giles read "Miles" 6th: Correct inscription as follows:—

éls Θέου [sic] δοζαν Θευδωρα ή Θεόδοτος δέδωκέ με.

Netherbury.—3rd: To "PRM" add "I" A correspondent thinks the date is intended for 1636; the third figure is inverted. In the note read "Bridgewater" for "Bridgort."

Nether Cerne.—Tenor: A common local type, I believe. 2nd unknown.

Osmington.— Treble: This belongs to a puzzling group of bells which has some claim to be considered as the work of Peter de Weston (see Surrey Bells, p. 16), but the lettering is of a new type. There are two sub-groups, distinguished by initials below the initial *cross:—

- (1) P.W. Ridgewell, Essex, 5th.
 Whitwell, I. of Wight, 3rd.
 Appledram, Sussex, 1st and 2nd.
 Broadchalke, Wilts, 6th.
- (2) R. Chale, I. of Wight, 1st.

 Beeding, Sussex, 1st and 2nd.

 Washington, Sussex, 1st and 2nd.

 Yapton, Sussex, 4th.

^{*} The cross is given in Surrey Bells (loc. cit.).

Osmington, Dorset, 1st. Downton, Wilts, 3rd. Milton Abbas, 1st.

The cross in each case is a plain thin one; the lettering is also plain, rather high and narrow; the symbol for S is characteristic (cf. the early Bury St. Edmund's bells, as at Coton, Cambs.).

The initials P. W., of course, point to Peter de Weston, nor will they suit any other known founder; but he would hardly have had *four* sets of type. It is not absolutely certain that they are Londoners, but there being one in Essex seems to point to the probability.

The R., I think, suggests a Christian name rather than a surname. In Surrey Bells, p. 73, Roger de Kyrkeby is given as founding 1347-1356, i.e., just after P. de Weston, and he may be the founder of this group. He may have acted as foreman to P. de W., and placed the latter's initials on bells made for him. Those with R. were made by him independently, and their localities suggest that he itinerated in Wessex and Sussex.

(From forthcoming "Church Bells of Essex" by H. W. B.)

Poole.—The tower of the old church was built about 1500; in it was one large bell and a saint's bell. Tradition says here were eight bells, which were lost at sea about a league hence as they were carrying (it) into Holland in the reign of Edward VI.

Another and more touching tradition saith that anciently a perfect peal was provided of 6 or 8 bells, which were shipped on board a vessel to be conveyed to Poole; but that owing to some impiety on the part of the crew the vessel was totally wrecked in a storm with the loss of all on board near Old Harry Point. Two small bells were then procured and placed in the tower, and the ancient mariners, when a ground swell comes on in a wintry eve, will still listen for the moaning of the impious crew and the solemn chime of the sunken bells mournfully echoing from the deep sea in which they are entombed.

(Hutchins, Dorset, Vol. I, p. 49.)

Puddletown.—Treble: Add "Mears & Stainbank founders London."

Shaftesbury S. Peter's .- 2nd: Add 1670.

Sherborne.—Tenor: To the couplet, "By Wolsey's gift, &c.,' add the letters G. H.

Mr. Wildman, with reference to these initials, writes:—"Who was G. H.? Clearly, I think, he was the author of this couplet. The churchwardens commemorated on this bell when it was re-cast in 1670 were Gustavus Horne and Walter Pride. It does not seem far-fetched to infer that G. H. is Gustavus Horne. If so, the couplet cannot be regarded, as some have thought, as equivalent to contemporary evidence that Wolsey gave this bell. It only proves what the belief was in 1670, when Gustavus Horne composed the couplet. At the same time I believe that Wolsey did give this bell to Sherborne, as there is no reason to distrust the tradition. On the fire bell the lettering I W I G should be I W I C, and they surely are the initials of John Whatcomb and John Cooth, churchwardens, 1653."

Silton.—Treble: For G C T G read G T C G 1900 Deo gloria This bell is said to have been brought from Farnworth, in Lancashire. 2nd: A correspondent thinks the date is intended for 1657. 5th: For "Burfitt" read "Bvrpvtt"

Solway Ash.—One small bell, diameter 20in., inscribed J. Taylor & C° Loughborough 1897.

South Perrot.—2nd: For "1650" read "1602 R P" 3rd: To the date add I H T P"

Steeple.—I have collected all the instances of the Culverden stamp, and in Cocks's C.B. of Bucks there is a marvellous account of a law suit of Culverden's against another bell founder, Smith, for libel. The petition must, I think, have been presented in the Court of Requests, abolished in 1641. There seems to have been a foundry in Culver Street, Salisbury. Culver being the old word for a dove, the joke seems to have arisen from the supposed cooing of the bell. There is no parish in England of the name of Culverden, though there may be a hamlet or manor. Dr. Raven.

Stoke Abbot.—4th: Probably I. T., of Exeter. Cf. Ellacombe's Somerset 29 (at E. Quantoxhead). For 1755 read 1725.

Stourpaine.—2nd: Add E M R M and between Canons I F. 3rd: For 1871 read 1876. 4th: Instead of "re-cast" read "cast."

Stower Provost.—Tenor: For "Priory" read "Friary"

Sydling.—Tenor and old 2nd: Both unknown.

Thornford.—Two new treble bells cast by Warner and Son are now (1906) being hung in the tower as a memorial to the late Rector. They are said to be inscribed (1), Wilfrid 1905 (2), Roxby 1905.

Tincleton.—For one bell read two bells.

Toller Whelme. - These bells are of steel.

Tolpuddle.—1st: Probably Salisbury. Cf. Somerset, Fig. 7, and Westerleigh, Gloucs. (See my paper.) The history of this cross wants investigation. It occurs in South Hants and W. Sussex.

3rd: Apparently by John Saunders, of Reading (for whom see Cocks' Ch. Bells of Bucks), but, if so, it was cast in his early days at *Winchester*. The stamp should have the arms of the See (crossed keys and sword)? There is, I believe, another of his bells at Hammoon. *H. B. W.*

Tenor: Unknown, a purely local type.

Tonerspuddle.—Unknown, probably 14th century.

Warmwell.—Tenor: By I. T. (cf. 2nd). The border occurs in Somerset (Ellacombe, fig. 86). The rose stamp occurs at Keynsham, Somerset, by a founder whose initials are R. A. (date 1654). He must have succeeded I. T. H. B. W.

Wimborne Minster.—The following account of the Wimborne Minster bells is by Mr. G. F. Score, parish clerk:—"As from time to time enquiries are made respecting the fine peal of bells in Wimborne Minster, I venture to give a few particulars concerning them. Through the kindness of the churchwardens in allowing me to examine their accounts, I have been able to verify most of the particulars and to give many items never before published.

The western or bell tower was completed in 1464, but there were bells in the Minster long before that time.

We know by the inscription on the tenor bell, which was recast in 1629, that it was given by a Mr. William Loringe. He, according to Hutchins, was one of the Canons of this church in the eighth year of King Richard II. (nearly 250 years before this bell was new-cast). This would give the original date as about the year 1385.

The churchwardens' accounts begin as early as 1475, and from the commencement of them we find references concerning the bells and particular names given to some of them, as

"The Morrow Mass Bell." "The Jesus Bell."
"The ffyer Bell."

In all likelihood the bell of S. Cuthberga hung in, and was chimed from the lantern (or central) tower, and other smaller bells beside. This would account for windows being left open in this tower to allow an exit for the vibrations of sound; these windows, though externally they are walled up, can still be traced inside.

Bells may also have been brought here from S. Stephen's Chapel at Kingston, which was disused about 1562, and these bells, with others, may have been melted down and used in casting new bells.

In an entry in the parish accounts, under the date 1686, it is stated that £28 was received from the bell founders for overplus of metal.

The following are extracts from the old accounts relating to the bells which existed before the present peal; they are taken principally from Hutchins' abstract of the accounts:—

- 1475. "Paid for mending the stock of a bell, and "clams" bought for the same 4½d. Other repairs for the bells. A new baudrick bought. For a new rope bought for the bell called "Cuthburgh" bell 12d. For mending the wheel of the little bell 3d."
- 1495. Paid to Thomas Carpenter for making a wheel for a little bell 3s. 4d. To Thomas Archer for

THE CHURCH BELLS OF DORSET.

114

mending a clapper. To John Scote for two bell wheels. For a man of Ryngwode for trussying a bell and for nails 17½d. For a new bawdrick for Cuthborough bell 12d. A cord for ditto 16d.

- 1496. For celebrating a Mass for a deceased person 4s. 4d. For ringing the bells 3d. Item. "For a rope bourt to the Saunctus bell" 9d.
- 1504. Paid for divers works done about the bell frames to Thomas Carpenter, 20s. 1d. Paid for making 30l. of brass "le brasse" 4s. and allowed for the purchase of 18lbs of new metal 5s.
- 1505. Item. "payde for a stoppe for I.H.S. (Jesus) bell"
 12d. For a "bawdry" (baldrick) to Cuthburga's
 bell 18d.
- 1506. Item. "payde for kepying of a dyrgys (dirge?) to yequere: ye rynggying beer and al 4s. 7d.

 Item. "payde to Thomas Carpynter for turning the second bell 2s. 8d.
 - Item. "payde to W. Horne for castyng of yo belle £4 3 4. Item. 1lb of wex to the same &c. Item. "y geve for hys costs att ho fyrste comyng 20d.
 - Item. to John Crabbe "for takyng doune of y° belle" 8d. Item. "for weyyng of y° belle" 4d.
 - Item. "y hanggyng" 8d. Item. "A reward for hys takelyng (tackling) 12d.
- 1510. Item. "to John Clarke for takyng doune of a bell,"
 12d.

Item. for carryying ye belle owte and home 6s. 9d.

Item. "for castyng ye belle" 37s. 4d.

Item. "for costs of 4 men and 4 horsse owte and home" 7s. 2d.

Item. "for pewter to y belle 2s. 6d.

Item. "to a carpynter for hangyng of 2 bellys.

Item. "payde for takyng doune of a bell" 12d.

Item. "delyveryd to ye bell caster 6s. 8d.

1524. Item. "to the smyth at Ryngwod for the claper of Sent Cuthbroghe bell" 12d.

Paid "for careage of the belle to Salsbere 5s.

for "new casting of the clock bell and for new metal bought of the founder" £5 9 8.

Paid "for the careage of the bell from Sarum home and for hanging of the said bell, above that we gathered" 16d.

1530. The Haloyng of the Clock Bell to the Suffrygan. Payd for halowyng of new pyx and chesybls, with awter cloths 12d.; and to the Suffrygan's servaunts 8d.; and for four ells of linen cloth for the Suffrygan, and for two ells of bokram and two ells of "cam'is," 2s.; and for frank kyn sence 4d; and for wyne and the clerks labour" 4d.

Item. "pay'd to the bell founder for mendyng of the second bell when it was craysd" in part payment of 27s. 8d.—13s. 4d.

Mem: "That the bell founder owyth for 3lbs of metall that was in hys ladyll" 12d.

1534. "payd ffor a new Rope ffor the peycys of the Cloke & a Rope ffor the morrow mas bell" 20d.

1571. Second bell new cast

1575. A rope for the "ffyer bell" 4d.

1581. Paid to Mr. Toogood for kepinge of the cheime (Mr Toogood was one of the ministers).

The "bell founderer," his wages 6s. 8d.

The "bell founders theer ernest 6d.

Other payments on account of casting a bell.

Paid for "caryadge of our bells to Gatemyster to be caste" 23s.

To them which guided the carts 20d.

For casting the bells £7.

1604. "Unto Byshop of Blandford for mendynge the great bell clapper 13s. 10d.

1608. To the "anvelmaker for new making the great bell clapper 38s. 7d.

Ironwork made to hang a bell in the "speare."

To "Goodman King for careing of the bell to Sarum to be new cast, and home agayne" 20s.

Mr. Wallis the bell founder

"Tacking doune of the fourth bell and hanging of him upp agayne" 4s. 6d.

The present bells are a fine peal of eight in the key of D. The following particulars are given of them with inscriptions and approximate weights, &c:—

- 1st (7cwt.) and 2nd (8cwt.), 1856. Inscription, "C. & G.
 Mears, Founders, London. These Bells were
 raised by Subscription 1856. Henry Frampton
 William Holland Churchwardens Charles
 Webb Charles B. Rowe Edward Henry Henning, Secretary Alfred Ellis, Jun' Frederick C.
 Lewer William G. Webb"
- 3rd (9cwt.), 1686. (This was the treble bell of the old peal of six)

Inscription, "Sum minima hic campana at inest sua gratia parvis. (I am the least bell here, but each little one has its own charm.) S.K. 1686. M.R.T.P. C.W. T.B. This bell was added to ye five in 1686."

- 4th (12cwt.), 1686. Inscription, "S M V. Pulsata Rosamundi Maria Vocata. (I am rung the Rose of the world called Mary) Samuel Knight Fee set 1686. T.B." Mathew Raindle Thomas Pottell Churchwardens
 - (Painted on bell.) This Bell was new hung in the year 1776 By (Probably John Bemister.)

(The S M V is a founder's error for S V M = Sum.)
In 1776 the churchwardens paid John Bemister's bill,
£11 16s., but no particulars are given.

The churchwardens' accounts have the following entries concerning these last two bells:—

1686. "P^d for cariage of the bells to Sarum & bringing the new bells back £2 5 o.

Pd other expenses at Sarum at casting the bells £2.

P^d for carying the bells the 2nd time to Sarum & bringing the new £1.

Received of the Bell founder for the overplus of mettall besides the two new Bells the sum of £28.

P^d the Bell founders charge at his 3 first times coming over in bargaining and taking down the bells as by our contract agreed £1 13 4.

Pd Richard Whindle for twice coming over & hanging & tuning the bells £3 11 6."

5th (16cwt.), 1598. Inscription, "thou the Lord olad 1598. I.W. (Generally given as Praise thou the Lord.)

6th (18cwt.), 1600. Inscription, "Sounde out the Belles in God regoyce" I.W. 1600.

From churchwardens' accounts concerning these last two bells:—

1598. "Paid for castyng of ye bell, metal, and other charges £8 5 5 To John Kyng for castyng of ye bell 138 4d

1600. For new casting the third bell and other charges £7 7 0."

7th (27cwt.), 1798. Inscription, "George Oakley & Samuel Bartlett. Churchwardens Robert & James Wells Aldbourn Fecit 1798"

In this year, 1798, an account was paid to Mr. Wells for £67 4s., which was probably for this bell, but no particulars are given. Aaron Abbott for carre £1 10 0.

Tenor (or Cuthberga bell). (Weight unknown, reputed 30-36cwt.) Inscription, "Mr. Wilhelmus Loringe me primo fecit in honorem Ste

Cuthbergæ renovabar sumptu parochiali per AB Anno Domini 1629" "Mr. William Loringe first made me in honour of St. Cuthberge; I was re-cast at the expense of the parish by Anthony Bond." H. Bradstocke R. Lewen Gardiani. C.P.S.W.R. W.B.

(Painted on bell.) This Bell was new hung in the year ... 7... (Probably 1776.) John Bemister.

NOTE.—See 4th bell. John Bemister's bill.

The re-casting of the "Great Bell" was evidently a great event for the people of Wimborne, and the churchwardens were very careful to give every detail in their accounts. We give below the full statement as set out:—

THE CHARGES OF NEWE CASTINGE THE GREAT BELL 1629.

		_		•
Item	Gave to, and spent uppon Anthonye Bond	£	s.	a.
	the Bell founder at his first cominge		1	8
Item	for mettle for the great Bell	17	8	6
	for Bricks to make the ffurnace	•	16	
Item	to Henry Allen and his sone for their Garden			
	to melt the great Bell in		15	0
Item	for wood in all to melt the great Bell	I	19	0
Item	for clearing of the same wood		6	0
Item	for bringinge pte of this wood to the ffurnace		3	0
Item	for 2 peers of Elme, 2 Elmen Planks and for			
	more Elme to make 12 Puleys & for			
	bringing it		17	0
Item	for Timber to make a new wheele for the			
	great Bell		8	3
Item	for Coles to newe make the Irons for the			
	great Bell		3	6
Item	for ffetchinge Mr. Scutts Rope from Poole to			
	helpe doune & upp the great Bell and		•	
	for carying it back		2	0

	THE CHURCH BELLS OF DORSET.	1	119	1
		£	s.	d.
Item	to Mr. Scutt for that his Rope was torne		8	0
Item	to the Roper for new makinge his Rope		8	0
Item	spent uppon Mr. Scutt and other when he			
	lent us his Rope			8
Item	to Stronge for Iron and work he did for the Bell	:	10	8
Item	to Richard Stickland for 2 Axces for the			
	traules wch carried the great Bell to the	•		
	ffurnace		1	4
Item	to Heulett for lendinge his schopp and tooles			•
	to the Bell founder and for helpinge him		5	0
Item	for drawinge makinge and twice Ingrossinge		Ĭ	
	the bond and articles betweene the Bell		•	
	founder and us the Churchwardens		4	0
Item	to Mr. Bryars to see them sealed in the Isle		•	
	of Wight by his suertyes wch saved us to			
	send a messenger		I	0
Item	in Bread and Beere at severall times to such			
	as helpt about wayinge, taking doune and			
	carryinge the great Bell to the ffurnace			
•	for bringinge it back and wayinge it			
	againe & for helpinge it upp		8	0
Item	to James Purchase for 4 dayes worke to helpe			
	the Bell founder about the makinge the			٠
	newe wheele, the Roler and Pullyes		4	0
Item	for nayles for the newe wheele		•	6
Item	for ffeorks for the Great Bell		1	6
Item	paid to Anthonye Bond the Bell founder and			
	for him for his wages for newe castinge			
	the great Bell at 6s. 8d. the 100 it			
	wayinge thiertye hundred and a halfe	10	3	4
	Sum £	S35	16	3
In a	addition to the peal there are two small bells in			_

In addition to the peal there are two small bells in one of the windows of the north wall of the western tower, upon which the military figure or jack strikes the quarters in connection with the clock.

The figure was made in 1613, as shown by the following entry from the accounts:—

1613. "To one of Blandford for carving of the jack 10s."

There is no date on the bells. Various customs are still observed in connection with the bells, which are rung here three times in the day. There is a morning bell rung according to the season, from 6 a.m. in the summer, then at 6.30, and in the winter at 7, also at 12 o'clock noon, and the curfew at 8 p.m.

These bells may be a survival of the Angelus bell. Some say they were rung in connection with the Grammar School—the morning bell to rise, 12 o'clock to have dinner, and 8 o'clock to retire to rest.

On Shrove Tuesday there is a bell rung at 11 o'clock, commonly known as the "Pancake Bell."

On Saints' days two bells are chimed at 8 a.m.

Winterbourne Abbas.—Tenor: Probably by John Sturdy, of London, 1420-1440. Compare Nettlecombe, Somerset, and Harlington, Beds. The crosses and lettering are his, but the initials I. S. absent, though usually found on his bells. H. B. W.

Winterborne Monkton.—When the present Rector came to Monkton, many years ago, the staging for the four bells mentioned in the list of Church Goods taken in the reign of Ed. VI. in 1552 still existed in the tower, but only one of these bells remained. The old people reported that the other bells had been sold and the proceeds used in the repair of the church.

On examining the entries in the "Monkton Church Book," he found that in $1802 \ \pounds 31$ 19s. $4\frac{1}{2}$ d. had been spent (of which £12 8s. 9d. was for a faculty), and in 1903 £57 1s. $2\frac{1}{2}$ d.—total, £89 os. 7d., and in 1835-6 £49 3s. $4\frac{1}{2}$ d., almost the whole of which was spent in the repair of the church, and in those years only fifteen shillings a year was raised by rate. There is no record of how the money was obtained; it certainly was not by voluntary subscriptions. W. M. B.

I believe this type to be by a Salisbury founder. The cross occurs (in a square) on the 5th at South Newton, Wilts, also at Wylye (3rd), with inscription in capitals. Winterborne Came

1st, Godmanstone 1st, and Chesilborne 2nd belong to this group. The inscriptions are sometimes Gothic capitals, sometimes "mixed" capitals, and smalls. Hence the date is probably about 1400. H. B. W.

Wraxall.—Information obtained from the old parish clerk. Rather over fifty years ago Wraxall Church had two bells, one of which was cracked. About that time Squire Sheen (?), who was the owner of Wraxall Manor and lived at Chalmington, did a good deal of repair to the church. He took out the cracked bell, making the cote smaller, and carried it away to Chalmington. "Canon Rooke said he didn't ought to do no such thing, but he never went after that there old bell to bring 'en back, and where he be now, I'm sure, I can't tell."

BELLS IN DORSET CHURCHES, TEMP. EDW. VI., A.D. 1552.

From a Manuscript in the Record Office.

In the list beneath letters are used to denote the bells as follows:—a. Great bells, generally in the tower. b. "Lyche" bell. c. "Saunce" bells. d. "Sacrynge" bells. e. Lyttel bells.

THE DENARYE OF DORCHESTER.

- 1. Studlond, 3 a.
- 2. Knoll, 3 a.
- 3. Wyke Regis, 4 a.
- 4. Est Stafford, 3 a.
- 5. Styple, O.
- 6. Corffe Castel, 4 a, 1 c.
- 7. Toller Fratrum, 2 a, 1 b, 1 d.

- 8. Kyngeston, 2 a.
- 9. Westlulworth, 3 a.
- 10. Tymham, O, 2 e.
- 11. Langton Matravers, 3 a, 1 b.
- 12. Est holme, 2 a.
- 13. Wourthe, 3 a, 1 b.
- 14. Sandewyche, 4 a.

- 15. Kemerydge, 2 a, 1 b.
- 16. Byndon Chapel, 1 (20 inches broad and the same high).
- 17. Est Stoke, 2 a.
- 18. Est lulwourthe, 3 a.
- 19. Woolle, 4 a.
- 20. Combkaynes, 2 a.
- 21. Portelond, 2 a.
- 22. Wynterborne Monckton,
- 23. Chaldon Herynge, 3 a.
- 24. Compton Valance, 3 a.
- 25. Upwaye, 2 a, 1 d, 1 e.
- 26. Mayne Martell, 3 a.
- Faringedon alias Wynterborne Germayne, 2 a.
- 28. Stockewoode, O.
- 29. Knyghton, 3 a.
 - 30. Osmyngeton, 4 a.
 - 31. Byncombe, 3 a.
 - 32. Frampton, 5 a, 2 belles abrode in the churche.
 - 33. Flete, 2 a.
 - 34. Wynforde Egle, 2 a.
 - 35. Fordingeton, 5 a.

- 36. Moreton, 3, whereof one ys broken.
- 37. Winterborne Cane, 3 a.
- 38. Dorchester HolyTrynitie, 4 a, 1 b.
- 39. All Saints (Dorchester), 3 a.
- 40. Saincte Peter (do.), 5 a.
- 41. Charmyster, 4 a.
- 42. Forston, 2 e.
- 43. Warmewell, 3 a.
- 44. Chykerell, 2 a.
- 45. Poxwyll, i "bell hanginge in the churche yearde"
- 46. Wytcombe, 2 a.
- 47. Owre Moyne, 3 a.
- 48. Stratton, 4 a.
- 49. Bradfford Peverell, 3 a.
- 50. Wynfryth Newborowe, 4 a.
- 51. Frome Vauchurche, 1 a.
- 52. Sutton Poyntes, 4 a.
- 53. Wynterborne Marten, 4 a.
- 54. Radipoll, 2 a.

THE DENARYE OF PYMPERNE.

- 55. Wychehampton, 3 a.
- 56. Stanbrydge, 2 a.
- 57. Chabbury, 2 a.
- 58. Farnham, 2 a, 1 b, 1 e.
- 59. Hanley, 3 a.
- 60. Hamone, 2 a, 2 d.
- 61. Wymborne omnium sanctorum alias over Stower,
 3 a.
- 62. Tarrant Rusheton, 2 a.
- 63. Gussage St. Michaelis, 4 a.

- 64. Chettell, 3 a.
- 65. Hynton Martell, 4 a, 1 e.
- 66. Alhallon Gussage, 4 a.
- 67. Tarrant Caynston, 3 a.
- 68. Edmundeshill, 3 a.
- 69. Horton, 3 a.
- 70. Tarrant Gonfyld, 3 a.
- 71. Langton, 3 a.
- 72. More Crychell, 3 a.
- 73. Longe Crichell, O.
- 74. Tarrant Launston, 2 a.
- 75. Cramborne, 4 a.
- 76. Tarrant Monacorum, 3 a.
- 77. Wymborne S. Egidii, 3 a.

- 78. Tarrant Hynton, 3 a.
- 79. Stower Payne, 4 a.
- 80. Knowlton (Capella de), 3 a, 1 b.
- 81. Ayshmeyre, 2 a.
- 82. Shapwyke, 3 a.
- 83. Pymperne, 3 a, 1 c.
- 84. Up Wymborne, 2 a.
- 85. Woodyattes, 2 a.
- 86. Crafforde Parva, 3 a.
- 87. Blandford Forum, 4 a, 1 c, 2d.
- 88. Pentrydge, 2 a.

THE DENRY OF WHYTCHURCHE.

- 89. Helton, 4 a, 1 b.
- 90. Afpudell, 4 a.
- 91. Stokewake, 4 a.
- 92. Stynfforde, 3 a.
- 93. Pulham, 3 a.
- 94. Godmanston, 4 a.
- 95. Almer, 4 a.
- 96. Wareham Martini, 2 a.
- 97. Charleton, 4 a.
- 98. Fyphed Nevell, 4 a.
- 99. Sydlynge, Hylfyld, & Upp Sydlyng', 5 a, 1 b, 3 e.
- 100. Armytage, 2 a.
- 101. Mynterne, 2 a.
- 102. Wynterborne Stycklond, 3 a.
- 103. Durweston, 4 a.
- 104. Pudeltowne, 4 a.

- 105. Bloxworthe, 3 a, 1 b.
- 106. Pudeltrenched, 5 a.
- 107. Wareham St. Mychaell, 3 a.
- 108. Tynkelton, 2 a.
- 109. Howton, 3 a.
- 110. Pudelhynton, 4 a.
- 111. Spetysbury, 3 a.
- 112. Lytchet Matravers, 3 a.
- 113. Wynterborne Selson, 3a.
- 114. Glanfeld Wootton, 3 a.
- 115. Newton Bucklond, 5 a. 116. Longe Cheselbourne,
- 5 a, 1 e.
- 117. Mylton, 4 a, and the clocke bell.
- 118. Turners Pudell, 2 a, 1 b.
- 116. Jbryngton, 2 a.
- 120. Tolpuddell, 4 a.

- 121. Whytchurche, 4 a, 1 b.
- 122. Haselbeare, 5 a.
- 123. Netherseron, 2 a.
- 124. Cerne, 5 a.
- 125. Okeford Shyllynge, 4 a.
- 126. Wollonde, O, 1 b.
- 127. Lytchett Mynster, 4 a.
- 128. Plush, 1 a.
- 129. Wareham St. Trynytis,
- 130. Aron Chappell annexede to Wareham, 2 a.
- 131. Stomyster Marshall, 4 a.
- 132. Mordon, 4 a, 1 b.
- 133. Wareham St. Maries, 4 a.
- 134. Alton, 4 a.
- 135. Anderstonde fyss Ashe, 2 a.

- 136. Burston, 2 a, one of them broken.
- 137. Wareham St. Peters, 2 a.
- 138. Beare Regis, 4 a.
- 139. Wynterborne Regis, 3 a.
- 140. Manpowder, 4 a.
- 141. Develyshe, 2 a.
- 142. Mylborne St. Androwes, 3 a, 1 b.
- 143. Vpcerne, 1 a.
- 144. Blandforde Mary, 3 a.
- 145. Turneworthe, 3 a.
- 146. Corff Molen, 4 a.
- 147. Eversute, 4 a.
- 148. Frome Quyntayne, 2 a.
- 149. Melcombe Horsey, 2 a.
- 150. Clenston, 1 a.

THE DENARY OF BYRPORTE.

- 151. Chardstok, 5 a, one lyttyl bell in the Chancell, 2 other lyttyll belles.
- 152. Stocklonde, 4 a.
- 153. Dalwoode (Chappell of), 4 a, 1 b, 3 d.
- 154. Southe Perat, 3 a, 3 d.
- 155. Mostron in the aforesaid parish), O, 1 e.
- 156. Maperton, 2 a.
- 157. Byrton, 4 a, 1 b.
- 158. Shipton (Capella de Byrton), 3 a.

- 159. Chedyoke, 4 a, 1 b.
- 160. Whytchurch, 5 a, 1 b.
- 161. Longe Bryddy & Lyttell Bryddy, 6 a, 1 b.
- 162. Askerswell, 4 a.
- 163. Coscombe, 4 a.
- 164. Byrtport, 3 a, 1 b.
- 165. Portysham, 3a.
- 166. Corton, one bell.
- 167. West Compton, 2 a.
- 168. Loders, 5 a, 1 b.
- 169. Bawnton, 3 a.
- 170. Waldyche, 2 a.
- 171. Hooke, 3 a.

- 172. Maydon Newton, 4 a.
 1 b, 2 e.
- 173. Chedyngton, 3 a, 11 other small belles.
- 174. Netherbury, 5 a, 1 b.
- 175. Bemynster, 1 a.
- 176. Abbotysbury, 5 a.
- 177. Wynterborne Abbas, 3 a, 1 b.
- 178. Halstocke, 5 a.
- 179. Abbotystoke, 3 a, 1 e.
- 180. Symysboroughe, 4 a.
- 181. Puncknoll, 3 a.
- 182. Swyere, 3 a.
- 183. Catystocke, 3 a.
- 184. Toller Porcorum, 4 a, 1 b, 3 d.
- 185. Lyme Regis, 2 a.
- 186. Charmouthe, 3 a, 1 b.
- 187. Chylfrome, 2 a.
- 188. Mylton, 3 a.
- 189. Porestocke, 5 a, 1 e.
- 190. Haukechurche, 4 a, 1 b.

- 191. Wambroke, 4 a, 1 b, 2d.
- 192. Allyngton, 2 a, 1 e.
- 193. Langton Herrynge, 2 a, 1 b, 1 c, 2 d.
- 194. Brodwynzor, 4 a, 1 b.
- 195. Burstocke, 3 a, 12 small cheme belles.
- 196. Wynterborne Stepleton, 3 a, 1 b, 1 e, "one other bell called a sance bell."
- 197. Brappaul, 4 a, 1 b.
- 198. Rawnasham, 5 a, 1 b.
- 199. Wotton Phytz Payne, 3 a, 1 b.
- 200. Chelborough, 2 a.
- 201. Tollerforde, 2 a.
- 202. Wraxole, 2 a, 1 b.
- 203. Bettyscombe, 3 a.
- 204. Lytton, 4 a, 1 e.
- 205. Chylcombe, 1 a.
- 206. Pylsdon, 2 a.
- 207. Pore Towne, 2 a.

THE DENRY OF SHASTON.

- 208. Bellchalwell, 3 a.
- 209. Osborne, 2 a.
- 210. Melbury Osmonde, 4 a.
- 211. Stoure Parvys, 4 a, 6 d.
- 212. Sylton, 3 a.
- 213. Stoke Gaylard, 2 a.
- 214. Wootton Nor., 3 a.
- 215. Over Compton, 4 a.
- 216. Fawke alias Alveston, 3 a.

- 217. Haydon, 3 a, 2 b.
- 218. Thorneford, 3 a.
- 219. Nether Compton, 3 a.
- 220. Berhacket, 3 a.
- 221. Sturmister Newton, 4 a.
- 222. Caundell Marshe, O.
- 223. Lyllington, 4 a.
- 224. Stower Est our, 3 a.
- 225. Long Burton, 4 a.
- 226. Holnest, 3 a.

- 227. Gyllingham, 5 a, 1 b.
- 228. Batcombe, 4 a.
- 229. Funtnelle, 4 a.
- 230. Compton Abbas, 3 a.
- 231. Yetminster, 5 a.
- 232. Lighe, 3 a.
- 233. Chetnoll, 3 a.
- 234. Brodford, 5 a.
- 235. Stalbridge, 4 a.
- 236. Marnhull, 4 a.
- 237. Melburve Bube with Wolcombe, 2.
- 238. Hinton Mary, 3 a.
- 239. Stoure Estouer, 3 a.
- 240. Margaret Marshe, 3 a
- 241. Motcombe, 4 a, 1 b.
- 242. Yewren Mynster, 4 a.
- 243. Est Orchard, 2 a.
- 244. Totbere, 2 a.
- 245. Child Okeford, 3 a.

- 246. Shaston Trinitye, 4 a, 1c.
- 247. Shaston, St. Peters, 3 a.
- 248. Romboll, O.
- 249. West Orchard, 2 a.
- 250. Holwall, 5 a, 1 b, 2e.
- 251. Caundell Episcopi, 4 a.
- 252. Caundell Purse, 4 a.
- 253. Caundell Storton, 4 a.
- 254. Lyd Lingeche, 3 a.
- 255. Kington Magna, 4 a.
- 256. Bochorne Weston, 3 a.
- 257. Sutton Walron, 3 a.
- 258. Manstone, 4 a.
- 259. Fyffeld Maudlyn, 3 a.
- 260. Ewren Curtney, 3 a.
- 261. Farindon, 2 a.
- 262. Okford Phippin, 4 a.
- 263. Ryme, 2 a.
- 264. Melbury Abbis, 4 a.
- 265. Shirborne, 4 a.

LIST OF AVERAGE WEIGHTS OF BELLS.

Diam.		Cwt.	Qr.	Diam.		Cwt.	Qr.
16		1	0	40		12	0
18		1	2	42		14	0
20	• •	2	0	44		16	0
22		2	2	46		18	0
24	• •	3	0	48		20	0
26	• •	4	0	50		22	2
28	• •	4	3	52		25	0
30	• •	5	2	54 ••	• •	28	0
32	• •	6	1	56	• •	31	0
34 ••	• •	7	0	58	• •	36	0
36	• •	8	1	60	• •	42	0
. 9		••	^				

CHURCHWARDENS' AND CHURCH ACCOUNTS.

HORTON.

Churchwardens' Accounts.

_	_	_	_	
1	7	z	z	

Sold to John Appleby t	hree Churc	ch Bells	weight		
20 cwt. 3qr. at £3 16 0	per cwt	• •	78	3 19	0
Four gudgeons at 8d per	lb	• •	••	17	0
			£79	16	-
Contrary to Dools			,		
Cartage to Poole	• •	• •	• •	10	0
Expenses (weighing bells	on quay)		• •	8	6
Freight	• •	• •	• •	13	6
Warfage at London	• •	• •	2	2 2	0
Expenses at selling them	• •	• •	•• 3	3 15	6

Humphrey Sturt Harry Thornbull churchwardens

Memorandum.

Whereas the Tower of the Parish Church of Horton is very much decayed, and the Parishioners are desirous to erect a new Tower upon a small aisle belonging to Edward Seymour Esq., the said Edward Seymour doth give leave that the Tower should be erected as desired, provided the Parishioners take care to place the monuments in the same places in which they now stand as near as may be and proper pews be erected for him and his family.

In witness whereof we have hereunto set our hands the 13th day of February 1721

E Seymour H Sturt Harry Thornbull Churchwardens

KINSON.

	Kinsoi	Ŋ.				
1751.						
Paid for a treble bell as	per bill wil	l appear	in every			
particular	• •	• •	• •	£13	8	2
Carriage of bell from Sh	aston	• •	• •		I 2	0
Three bell ropes	• •	• •			10	6
Iron and workmanship a	about bells	• •	• •	1	5	0
1797.						
Paid the ringers when the	ne Dutch fle	et was t	acken			
1812.						
To Joseph Purce for a	new gallery	and put	ting up.			
For taking the old bells	out of the t	ower for	moving			
the pulpit and fixing	pews and	l taking	away a			
beam and fixing oak h	eam	• •		£76	2	3
Carriage of old bells to	Bristol		• •	9	4	6
Amount of bells sold	• •	• •	• •	£143	9	4
Brass boxes	• •	• •		I	1	0

It is stated in the village that the bells were sold in Bristol and the money received from them used for putting up the gallery in the church. *Reeves*.

OKEFORD FITZPAINE.

The Expenses of the 5 New Bells lately placed in the Tower within this Parish.

				£	s.	d.
Mr. Mears Bill	• •	• •	• •	138	0	0
Carriage of the Bells to &	from Tow	n	• •	8	I	3
Chas Trowbridge & G.	Brown fo	or Cutting	and			
sawing the Timber for t	he same	• •		3	12	3
Joseph Brown's Bill	• •	• •	• •	3	I 2	1
John Trowbridge Do	• •	••	• •	1	15	
Blacksmiths Bill	• •	• •	• •	2	4	7
Abraham Trowbridge Bill	• •	• •	• •	I		

THE C	HURCH BELL	s of	DOI	RSET	r .		12	9
						£	s.	d.
Joseph Loder's Bill	• •						5	
George Allen Do	• •	• •			• •		5	
Postage of Letters fro	m London	• •			••		3	4
						158	18	6
			£	s.	d.			_
By Balance on last Ac	compt.	• •	6	10	37			
Rec for Bark	• •	• •	5	7				
Do for Iron	• •		2	12	6			
Do for Old Timb	er	••	2					
			16	9	9‡	16	9	9
						142	8	81
Deduction in Mr Me	ears Accomp	t for	Bra	afs	and			
Warfage	••	••			••	6	6	3
September 7th	1820.			1	Owe	136	2	51
In pursuance of no to the above Accounts		lay ho	ld a	ı Ve	estry	& do	ag	ree
I	ohn Lowndes	Rect	tor					
,				1		_		
	John T	rowbr	idge	} c	hurc	hward	ens	5
	John H.	allett) ~	•				
	Sarah V	ater	} Ov	erse	ers			
and al	oout 2 dozen	other	nar	nes.				
A note on opp. page	states							
"the 5 New Bells		n the	Tot	ver.	Ju	ne 18	20.	
v	John Lo				•			
	Ben. Phi	llips	۱	١				
	&	-		chi	ırch	warde	ns.'	,
	John Tro	wbrid	lge					
Then follows an acc	ount of the 2	s. rate	of	Sep	tem	ber, 1	820	•

Total £104 138. 5d.

This is followed by a subscription list headed as follows:—

Whereas some of the parishioners objected to the payment of the rate to defray the expense of the Bells as will be seen on the outside of this book, In order that they should not be aggrieved a subscription was made by many Independent Inhabitants to defray the expense of the additional Bell as there were only 4 to that period the Timber was given for the Frame as a donation by the Right Hon. Lord Rivers, Lord of the Manor of this parish.

(Total, £41 4s. 1d.)

PIMPERNE.

Churchwarden's Account.

1846.

SHAPWICK.

1765.					
Paid Mr. Chapcote for the bell	••	• •	£5	15	6
For beer and biscit when the bell was	hanged	• •		1	2
1768.					
Expenses of carrying the old bells to	Salisbury	and			
bringing home the new ones	• •		£3	9	10
Paid Mr. Robert Willis bell founder for	r the excha	nge			
of the two old bells for 2 new ones			£49	I 2	0
			Re	eves	

SHERBORNE.

The first mention of the bells of All Hallows (i.e., the old parish church which was built on to the west end of the Abbey, and continued to be used as the parish church until the town bought the Abbey Church at the dissolution of the Monastery in 1539), is in the year 1514-15, when some repairs were done, but the account is much torn; in 1515-16 2s. 4d. was paid for the keeping of the bells, and 13s. 4d. was spent on the clapper of the great bell and 7d. on the bawdricks, and 4d. on grease, and 3s. on two bell ropes, and 2s. 2d. on trussing the Big Bell. The Big Bell here mentioned is probably Wolsey's bell, which was given to the town, not to the Monastery. Similar entries to these occur regularly. All Hallows had five bells at least as early as 1527-8. When the parish bought the Abbey Church in 1539-40 the bells were transferred from the Parish Church of All Hallows to the Abbey Church, and there were certainly six bells in 1542-3, for Roger Smyth was then paid 2d. for a buckle for the bawdrick of the sixth bell, and Appulby and his two men were paid 1s. 2d. for trossyng of vith bells and for nayles to that work. Two years later an entry occurs, 1544-5:-

Item payd to Wyllyam Butt ffor makyng off the barell off the chyme, IIs. IVd; ffor tymber off the same barell, XIId.

In 1556-7 the fifth and sixth bells were recast, and a great collection was made for the bells amounting to £61 19s. 9d., besides gifts of cows, parchment, skins, bell-wheels, &c. The following statement is added to this account:—

Belle metal wch the churche had in stoor and yt was bought for the yth and yth belles.

Inprimis the ffirst belle weyd viic xxxiiii.

Item the thyrde belle weyd XIII c and halff and XVIII.

Item payd to William Shymell for LIII metall xxII Id.

Item payd to the same Willm. ffor cc and halff and xxII^{li} metall at v^d the li vI^{li} v^s x^d.

Item payd to same Willm. for cc and one li of bell metall IIII^h XIII^a IX^d.

Item to John Poole ffor metalle VIII.

Item Hewe Whetcombe for XIIII metalle vs. IIId.

Item to Wyncaunton (i.e. Wincanton in Somerset) ffor LXIII li. at IIII^d ob (i.e. $4\frac{1}{2}$ d.) the li XXVIIS VIII.

Item John Poole for vi bell metall iis. vid.

Item payd ffor the bell brasses wch weyd XLI li at VId. the li XX* VId.

Item to John Kerner ffor a molde 11d.

Item payd to ffoster ffor tymber to make the bell stocks VIS VIIId.

Item for sawing of the same vid.

Item to ffoster ffor one c of iron xiiis. iiiid.

Item to Thomas Wynnyff ffor an obligatio ffor makyng of the said belles xIId.

Item payd to ii men one to goo to Coker (Somerset) and another to Chesylborne (Dorset) about the bells x^d .

Item for ii rowkes ffor the wayghts x11d.

Item gyft to the bellfounders men and drynke ffor carriars off the belles at Yatmyster (Yetminster) XIIIId.

Item for caryying the weyghts vd.

Item ffor the cariars dyner at Shirburne 111s. 1111d.

Item to Barny Leew for goyng to Coker vid.

Item payd ffor the vith belle claper yt wayed LXXX XII li XLVIS.

Item to Apsey for hangyng the belles xiiis. Ivd.

Item IIII mens table v days aboute the same xis.

Item to Cobbe ffor workyng XL li iron at 11d. the li VIS. VIIId.

Item for a buckle ffor the vith bell iiid.

Item to Robt Mullyns ffor making IIII scor nayles, mendyng off a buckle and for booltes to the belles XIId.

Item payd to John Gullocke for mendyng the vth belle clipper and to James Tymber ffor mendyng a brasse xid.

Item payd to John Gullocke ffor woorkyng vii scor v li yron iid the li xxiiiis. iid.

Item ffor a roope ffor the VIth bell IIIs. IIIId.

Item to Ric Damper ffor fetchyng and carryyng home a roope to Sr John Horsey VIIId.

Item payd ffor a buckle and bawdrick ffor the vith bell vis

Item to Baller ffor trussynge the III belles and to a man to helpe hym xvIIId.

Item payd ffor a roope ffor the great belle IIIs. IIIId.

Item payd to Poole for the vth belle LXIII li.

Item payd to the same Poole ffor castyng the vith bell x li.

Item payd for takyng doune the bells and brckyng, IIIIs. Id.

Item payd ffor Roopes ffor the scales, vs. xd.

1558 Inprimis payd to ye Bellfounder for the iiiith Bell waying at the hundred xxxvili. xivs. ivd.

Item payd to Apsey and his sons for hangynge uppe of the sayd belle and for their meat and drynke for iii dayes and a halfe, viiis. vid.

Item payd to Roger Coker for Iren for the sd Belle vis. viiid. Item payd to James Poncharde and Thomas Adamps to helpe them in the same worke xvid.

Item payd to John Adamps for his expenses for bryngyn home the sd Belle xvid.

Item Bullock for nayles 11d.

There is a mysterious item in the account of 1553-4 as under:

Item in full payment of a Belle solde xLli.

Why this bell was sold is a matter of doubt. It may have been one of the Abbey bells (perhaps the only one in the Abbey tower before the others were removed from All Hallows Church) which had been sold cheap.

In 1567-8 there is a memo—that the newe bell lacketh of his former weight Lxvli of metall.

In 1574-5 a memo—William Purdy (Purdue) bellfounder must allow for cccxviiili of bell metall that lacketh in weight of new bell.

In 1577-8 occurs:--

The weight of the belles as they were delivered to Purdewe.

The flouerth Bell ii Δj (tons) CXIII at $V = V \Delta j = V \Delta j$

The weyght of the belles receved ffrom Purdewe

The ffouerth Bell iiaj cccxxxli.

The Lady Bell iiiaj LxIxli.

At $_{V}^{XX}$ XIIIi p cwt = $_{V\Delta j}$ IIIC III qr XVIIi (sic) it should be 15lbs., and so received over 2 cwt. more metal than was delivered. Besides these bells a panne bell (probably an hemispherical bell) and a salve bell are mentioned, the ropes for which cost 1s. each.

In 1653 Robert Austen and his sons were paid £55 9s. 6d. for casting bells and for metal for the Panne Bell.

A brasse put on the Great Bell in 1653 cost £2 7s.

The Great Bell was recast by Thomas Purdy (Purdue) in 1670 at Closeworth as the account for that year says. The casting alone cost £21.

The following from the account of 1570-1 illustrates the use of the Great bell at funerals:—

Item received of Jones Jones for the burying of Joan Barton yn the Church and for rynging of the greate bell and her gifte xx.

Item received of Mr. Assheley for burying his sonne yn the Churche and rynging the great bell x.

Item received for the buryinge of Mr. Assheley in the Churche and for rynging of the great Belle and his gifte xx*.

In 1715 if the great tolled at a funeral the charge was 10s.

,,	,,	5th	19	"	,,	,,	6s. 8d.
,,		4th	,,	,,	,,	,, .	5s.
,,	,,	3rd	,,	,,	,,	,,	3s. 4d.
,,	,,	2nd	,,	,,	,,	,,	2s. 6d.
,,	,,	ıst	,,	,,	,,	,,	IS.

The custom of ringing the curfew is still retained in Sherborne; the third bell was formerly used for that purpose, but in 1885 it was found that the clapper was much worn, and since that time the 4th bell has been used instead.

The bells used formerly to be rung (and are still rung) on the anniversary of the Coronation of the reigning Sovereign; on Nov. 5th: to celebrate great victories—e.g., the Armada defeat, Cape La Hogue, Blenheim, Ramilies, the defeat of Monmouth, the arrival of the Prince of Orange in Sherborne, the acquittal of the Seven Bishops, Peace of Ryswick, Peace of Utrecht, taking of Mons, &c., also on March 25th, 1709, for the joyful and never to be forgotten news of the happy deliverance of the brave Dr. Sacheverell (a Dorset man).

The bells were rehung in 1885 by Messrs. Warner and Sons; the four largest bells are hung with Goslin's patent stocks and hangings; and the whole of the bells are mounted upon Goslin's bearings. The frame stands entirely free from the tower, so that there is ample space for passing round the frame and the walls. After being rehung they were opened on December 9th, 1885, by the Society of College Youths.

From a Book of Parish Accounts, 1720 to 1809.

"1762-3. By cash paid Mr. Belby and Mr. Evans for new hanging the six bells and for their keeping them in repair for Two years being bound by Bond to perform the same £50."

"By Do. paid for new hanging the Little Bell and the Fire Bell £4 4 0"

The church clock, which until very lately stood in the tower and worked the old chimes, was made at Berwick S. John by Mr. William Monk in 1739, and cost £25. The weights were suspended by ropes which he had to supply gratis, and he had to pay also £2 115., the cost of the carriage of the clock to Sherborne.

THORNFORD.

Churchwarden's Accon

1670-80.
spent with Thos. Purdy (Purdue) at
Thornforde

136 THE CHURCH BELLS OF DORSET.

Paid John Eares (Eayres) for takeing downe of Litell Bell	f ye	£	s.	
for beere when ye bell was down	• •		I	6 6
for hollinge of him awaye	• •			6
1680-1.	••		I	O
Spent on ye parish at ye takinge downe of ye bell			_	
our expenses for five dayes about ye bells	• •		3	6
for our expences for five dayes about ye bells	· ·		9	6
paid y two writes (Wrights) of Yeatminster for ye worke			- 4	_
	••		16	3
Spent upon Perdew (Purdue) and ye other wakeme			_	
ye hanginge of ye bells	••	_	2	0
Paid to John Eares and his sonnes for there work		I	8	0
for ye carredge of ye bells out and home again	•••	I	0	0
paid and secured to be paid to perdew (Purdue	•			
castinge of ye bells and over metell and for cast	inge			
of ye brasses	• •	2 I	9	6
1683.				
Laid out for a new bel wheal	• •		15	0
paid ye smith for Clams and nails and his laber	• •		2	6
Laid out in beare at ye bargain making	• •			6
Laid out for beare at ye setting of ye wheal 1687-8.	••			10
for ye Church bibells new forell and claspes	••		18	0
1688.				
Paid for ye King's proclamacon and the book	for			
Thanksgiveing for ye young prince feigned	• •		2	0
Gave in beer to the ringers att the freeing of	the			
Byshops			4	0
1690.				
Gave the ringers for the vietory in Ireland 1708-9.	• •			6
pd for casting the Bell		_	^	_
pd for 71 pounds of new mettle at 1s. 2d. p pd is	••	7	0	0
Paid for 5 dayes and half for a Carpenter to hang		4	Z	10
Bell at 2s. 6d. p day is	• •		13	6

pd John Mo	oore for 4 da	yes work	and half at	out ye	£	s.	đ.
same	• •	• •	• •	• •		5	3
Spent in exp	ences at.Clos	att (Closw	orth) and a	t home			
about ye b	ells	• •	• •	• •		9	0
pd for for lea	ather for the	Clappers o	of the Bells	• •			7
1712.							
pd the smith	n for Rightin	ge the Ei	er gare (iro	nwork)			
abt the tet	le bell	••	• •	• •			9

There is not a clock in the tower at the present time, but in the year 1671 one was set up by a Mr. Watts. This is also said to have been placed in Bradford tower. About the end of last October the old clock at Bradford was sold for old iron, so it may have been the one originally in Thornford Church.

The Author of the monograph and the Compiler of the notes on Dorset Bells desire to express their thanks for the great assistance they have received from members of the Dorset Field Club and others whose names are given beneath:—

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Returns of Mainfall, &c., in Porset, in 1905.

By H. STILWELL.

THE year 1905 has been deficient in Rainfall in Dorset. The average annual fall is about

34 inches, but the mean derived from the 51 stations included in the following tables amounted last year to only 26.939 inches, showing a deficiency of rather over seven inches.

It will also be seen from the tables here given that up to the end of October the deficiency had been proportionately larger, but

November gave a mean of 5".208 for the month, and so helped to adjust matters, although in December the amount again fell off.

The months of March, August, and November only gave rainfall in excess of the average, but the deficiency was considerable in January, February, May, July, and December.

The heaviest and most universal fall happened on 10 November, on which day upwards of one inch was registered by 23 different observers.

Upwards of one inch was recorded on eight different days during the year. In 1904 this occurred on 23 days, showing how infrequently heavy rain fell in 1905.

At Cattistock 33"19 was registered during the year, which is the heaviest rainfall recorded. Portland, High Light House, has the smallest record—viz., 21'60—but Buckhorn Weston received only 21'84.

The names of three new observers are added to the list this year—namely, Rev. J. C. M. Mansel-Pleydell, at Sturminster Newton, Mr. L. G. Pike, Stoborough, Wareham, and Mr. Scratton, at Melbury Bubb.

OBSERVERS' NOTES.

Shroton House, Blandford.—August was the wettest August, and December the dryest December for the last ten years.

WINTERBOURNE HOUGHTON.—Rainfall under the average considerably.

The lowest temperature, January 2, 220.0.

,, highest ,, July 9, 80° o.

During the summer months there was a remarkable absence of thunder weather.

STURMINSTER MARSHALL.—May 3: Tremendous storm of hail and rain between noon and 1 p.m., in which 0.52 fell. August 13: Heavy thunder. October 16-17: First sharp white frost; everything cut down. November 3: Some thunder at 12.30 p.m.

BLOXWORTH RECTORY.—The character of the past year has been an almost total absence of thunderstorms, a portion of one only (November 3) having passed directly overhead, though on two other occasions there have been sounds of thunder at a distance. Another feature has been the great coldness (not frosty) and ungeniality, especially at night, resulting in a marked absence of ripeness and flavour in all fruit, also the early date at which vegetables, such as cucumbers, french beans, and marrows,

and flowers (as dahlias) were cut off by frost—viz., October 16—whereas these on this spot usually escape until often well on in November.

WORTH MATRAVERS.—Highest temperature in screen, 73°.

Lowest	,,	,,	24°.
Highest	,,	in open,	92°.
Lowest	,,	,,	22.05

Frost on forty nights during the year. Snow, very slight in every case, fell January 1, 15, and 16, February 19, November 18 and 19. June 5-6: Twenty-four hours continuous rain, 1:43. October 30: Thunder between 5 and 9 p.m., very slight, except between 8.30 and 9. November 15: Aurora borealis 7.45 to 8.45.

WESTHAM, WEYMOUTH .--

Maximum temperature, 77.0, on July 21.

Minimum ,, 26.3, ,, November 21.

Mean temperature of the year, 51.0.

Bright sunshine ,, 1,706hrs. 52min.

Relative humidity ,, ,, 78 %.

Thunderstorms March 15 and November 2.

CHICKERELL.—March 15: Thunderstorm at about 2 a.m., violent hailstorms during the day, and thunderstorm 8 to 9 p.m. Thunder heard March 28, June 15, August 29, and November 3.

UPWEY.—February, May, July, and December were dry months in a dry year, May being the dryest month since July, 1898. Rain never exceeded one inch on any day. Snow fell on November 17 and sleet on November 18. December was remarkable for the number of wet days (19) with such a small rainfall (1.88).

BEAMINSTER, FLEET STREET.—Mean maximum temperature for the year, 56°1; maximum temperature was 70° or above on 48 days, but did not once reach 80°. The year's rainfall was 8".34 below the Beaminster average. The barometer reached the remarkably high reading of 31.05 on January 29, and fell to 28.98 on March 15.

BEAMINSTER VICARAGE.—Total rainfall, 30.12. The average for previous 32 years (1873-1904 inclusive) = 38.21. Lower

rainfalls during those 32 years:—1887 = 28.26, 1892 = 28.52, 1898 = 29.48. Highest:—1882 = 47.02, 1891 = 47.04.

Broadwindsor, Blackdown House. — Thunder heard March 14 and 15, June 14, and November 12.

Broadwindsor Vicarage.—April 23: Severe hailstorm about 9 p.m. August 29: Thunderstorm 6.45 p.m. November 15: Aurora borealis observed at 9 p.m., two scarlet clouds.

CHEDINGTON COURT.—March 14 and 15 we had thunder, lightning, and hailstorms. During the greater part of May the wind was extremely cold and dry, and from 4 to 24 it blew from N.W. without a change. This year's rainfall, 33'31, is below the average, which for the last eight years is 36'61.

CHETNOLE.—March was wetter and milder than usual; May unusually dry, with much sunshine and uncommonly cold nights, ten frosts during the month and average night temperature only just over 35°. In October night temperature very low, frost on fifteen nights, and very sharp from 14 to 26, when there was nine to ten degrees of frost in the screen.

WINTERBOURNE STEEPLETON.—A very dry year, the rainfall being just over seven inches short of the average of the previous twelve years. In that period only two years have had a smaller rainfall—viz., 1893 and 1898. The longest period of drought was 14 days—viz., September 14 to 27. In July out of the total, 0.50, 0.38 fell on the 10th, thus leaving only 0.12 as the rainfall of the other 30 days.

TABLE I.—DEPTH OF RAIN IN INCHES, 1905. .

Observer.	Station.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Set.	Nov.	Dec.	Year.
	Wilton on Stone	78.0	67.0	4.58	8.6	08.0	8	0.30	1 5	9:	ş	865	ě	7.70
S. H. Stephens	Gillingham	98	12.0	88.	2.40	88.0	88	0.47	4.12	1:53	1.98	8 6	9.0	24.95
eth	/eston	99.0	0.63	60.	1.95	0.34	3.10	0.54	3.45	1.45	1 59	3.61	0.73	21.9
:	Shaftesbury	1.25	0.77	9.	98.	0.46	3.46	0.38	4.16	1.43	5.02	3.28	0.82	24.16
: -	Sturminster Newton	1.08	0.15	4.36	5.18	0.47	4.32	33	3.83	33	1.88	4 .10	0.25	89.93 32.08
	The Vicarage	86.0	0.73	4.12	98	0.35	4.12	83.0	3.40	33	5.08	3.60	0.75	8
opford		6.0	86.0	2.50	60.2	0.45	3.31	0.52	9.	1.70	50.5 50.5 50.5 50.5 50.5 50.5 50.5 50.5	5.17	38.0	27.46
Bassett	Winterbourne Houghton	1.0%	96:0	5.15	2.12	0.22	2.27	0.40	4.43	2.17	2.47	90.9	96.0	88.88
:	., Whitchurch, Longthorns	1.08	1.09	2.18	5.15	0.12	8	98.0	3.71	5.11	5.44	9.20	1.16	8
:	Horton Vicarage	0.87	0.63	2.48	96.	0.22	1.88	97.0	3.2g	1.25	5. 33	4 .58	12.0	24.30
ury	Wimborne, Codford	0.85	0.74	5.42	88	83.0	3.16	99.0	3.78	5.15	5.12	9.14	8	88
ck ::	" Westfield	96.0	0.22	2.18	5.02	0.15	2.11	9	3.31	5.41	66	5.31	1.0	88
:	Sturminster Marshall	0.61	62.0	5.18	1.75	8	5.18	8	3.15	28	5.23	4.81	0.78	25.33
F. G. A. Lane I	Bloxworth House	1:14	0.77	5.63	5.16	0.35	2.15	0.43	3.38	88 63	60 7	2.46	8	9
ridge	" Rectory	===	0.18	5.41	-38		5.5	0.47	8	88	5.67	2.51	8	8
:	Vicarage	1.01	0.24	4.95	1.92	0.34	1.89	88.0	3.12	8	Ş2 53	2.22	0.81	24.8
:	Parkstone, Poole Road, "Ben Hur"	1:14	68.0	4.95	\$	29.0	5.85	88	5.55	88	5. 4 3	4.29	0.8	2 2 2
:	Wareham	99	0.20	2.60	1:73	0.65	8.00	9.48	5. 5.	99. 75.	5.25	9 .04	8	88
:	Stoborough, King Barrow	66.0	0.65	2.28	1.54	0.22	5.79	0.41	88	5.2	2.45	9	0.15	£
:	Holme amloH	- 1:10	69.	6.14	1.74	0.5	5.29	SF.0	88	83 23	8	5.14	0.84	2
:	Swanage, Victoria Hotel	1.08	0.22	2.05	1.79	0.48	5.6	0.44	2.21	1.84	5. 28.	÷	0.73	7.73
herd	Worth Matravers	==	0.13	4.91	1.78	8	3.23	7.5	88	20 20 20 20 20 20 20 20 20 20 20 20 20	32	\$	88 0	27.51
:	East Stoke, Binnegar Hall	1.14	29.0	6.03	1.79	0.25	2.12	0.30	3.41	2.77	8 8	9	1:14	₹
W. D. Filliter	Lulworth East, The Vicarage	1.08	12.0	9.30	1:73	0.46	5.28	0.74	3.73	582	5.51	2.85	96.0	29.53 63.
Rev. W. P. Schuster	West, ,,	1.15	0.40	4.79	1.61	98.0	5.58	0.62	3.31	5.54	2.27	2.40	0.78	\$ 92
Brown	Weymouth, Westham	1.09	0.44	4.24	1.50	0.54	1.28	0.47	5.63	5.31	8.5	4.54	0.29	21.6
Mrs. Pretor	Wyke Regis, Belfield House	1.56	0.43	4.48	1.75	0.31	1.85	0.25	2.21	5.30	5.16	4.52	0.73	88 23 24

TABLE I. (CONTINUED).

Observer.	Station.	Jan.	l. Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
W Ratten	Portland High Lighthonsa	1.0	0.53	4.70	1.4.1	8.0	9.08	9	11.6	6.61	36.	4.0.4	0.69	91.69
Mrs Goorge	Floor House	:	_	1.75	1.1	3 6	:	3 8	100	3 6	3 6	8	200	1 8
Man Dishaman	Children II Mantania	:	_	9		5 6		3 9	3 8	3 6	1 0	3 5	9	3 :
	Chickerell, Montevideo	:	-	3	40	33	8	24.5	A0.7	01.2	CO.2	70.4	8	2
R. Stevenson Henshaw	Upwey Waterworks	: 1.1		4.58	5.11	88	25	÷53	3.35	5.16	5.15	7.25	88	5 7 .18
J. C. P. White	Abbotsbury, New Barn	1.10	-	4 .08	1.76	98.0	1.77	0 44	19.7	5.50	1.76	4.81	0.81	22.57
	Bridport, Coneygar	0.75		2.48	8.50	0.45	2.21	99.0	4.52	1:70	2.41	4.95	86.0	26.81
Dr. J. Spurr	Lyme Regis, Colway Cottage	0.85	19-0	5.13	5.30	9.50	98.	0.54	3.47	1.76	2.43	2.00	1.13	25.61
J. Andrews, jun.	Beaminster, Fleet Street	39.0		5.73	5.28	80	85.58	750	4.50	80.2	2.11	90.9	0.61	26-63 28-03
Rev. A. A. Leonard	The Vicarage	:2.0		2.20	5.21	9.85	2.41	0.61	4.61	90.7	5.68	8.9	86.0	30.12
C. E. M. Pinney	Broadwindsor, Blackdown House	36.0	-	6.16	3.16	0.52	85.2	87.0	97.7	5.85	5.49	6.62	1.44	32.33
Rev. G. C. Hutchings	The Vicarage	32.0		2.84	5.20	7. 0	2.53	0.0g	4.53	3.03	2.20	6.15	1.17	31.30
H. Birkinshaw	Chedington Court	12.0	-	2.82	5.69	0.62	5.28	93	8.8	5.58	3.63 5.63	6.41	99	30.31
R. Rintoul	Melbury Sampford	16.0	_	6.20	5.29	0.61	3.00	0.46	8.3	1.67	2.21	2.67	1.28	30.32
A. Scratton	Bubb	1.15		97.9	2.41	0.84	3.45	0.55	3.82	2.81	5.62	2.67	96.0	31.95
	Chetnole	1.0	_	5.81	5.48	0.79	3.57	0.61	4.37	1.11	5.41	6.13	1:11	20.50
T. Turton	Sherborne Castle	999	_	4.43	25	0.43	3.45	8	4.14	8	50.5	4.35	92.0	27.98 98.
G. Coffin	Holwell, Westrow	1.01	_	5.16	2.21	99.0	3:36	0.54	4.05	5.10	2.17	4.87	1.12	88 88
E. S. Wilmot-Sitwell	Cattistock Lodge.	1.5		96.9	2.67	0.87	19.3	9.0	4.77	2.53	2.75	8.58	1.07	33.19
Rev. A. Lewis	Littlebredy Parsonage	1.1		5.43	5.44	64.0	5.10	19.0	4.41	19.3	5.58	6.35	80	8 2
:	Winterbourne Steepleton	1.45	_	6.57	5.29	0.63	1.93	93.	4.15	5.78	5.31	9.40	1.55	31.50 20 20 20 20 20 20 20 20 20 20 20 20 20
R. B. White	Herringston	36.0		2.88	5.40	83	1.94	0.43	3.78	99.3	55	5.41	99.	27.61
G. J. Hunt	Dorchester Waterworks	1.20	_	67.9	5.31	0.48	1.89	0.40	3.37	5.22	89.7	2.54	1.13	27.65
Captain J. E. Acland	Wollaston House	1.10		2.30	5.12	0.37	1.74	0.32	3.42	5.60	5.65	6.02	1.53	28.15
J. Powell	Puddletown	1.08	_	6.05	5.51	88.0	388	9.3	3.57	2.17	2.43	9.05	1.17	27.65
					Ī	Ī	Ī			Ī				
	Means	1.011	0.725	5.311	2.080	0.27	2.238	0.475	3.609	2.167	2.340	5.208	0.943	88.93
		-			-	-	-	-		-				

TABLE II.—RAINFALL IN 1905.

										_	_			_	_	_	_	_	_	_	_		
ed.	.таэХ	į	27.	158	176	25	12	124	148	35	3	167	155	ន្ទ	3 2	172	163	9	25	88	137	146	<u> </u>
cord	Dec.	;	= 2	12	12	70 K	. 0	7	2	=	=	12	12	90	0 2	12	=	0	3;	14	20	90 9	3_
52 52	.voV	;	21	14	82	22	8	17	83	18	28	21	8;	21	3	ដ	ន	61	31 8	3:	2	2;	` _
re w	.toO	;	2 2	14	13	18	ĭ	2	13	15	2	==	2:	33	32	임	27	۵,	2	=:	2	20 9	3
r mo	gebr	:	3:	12	=	x c	0	-	91	23	걸	13	27	2:	12	2	=	2	2;	2:	=	2	»
in. o	·3my	8	3 ;	191	61	17	28	11	15	15	6	8	8	4;	12	18	12	11	₽;	*	9	2;	=
10. प	July.		- 4	- 10	-	20 10	4	7	4	80	00	00	ю.	•	0 4	00	8	0	*	9	0	9	•
whic	June.	;	22	32	91	25	1=	7	Ħ	12	2	15	71	29	12	1	12	8	2	8 ;	7	2:	=
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TABLE II. (CONTINUED).

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	ĺ	In.	Į.							-		_	<u> </u>	<u> </u>	<u> </u>	ļ	_	l
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Wyke Regis, Belfield House	:	22.88	96.0	5 June	:	12	00	7	얾	15	_	13	7 16	3 11	_	18 18	3 12	_
Portland, High Lighthouse	:	21.60	1.07	2	-	8	13	6	73	21		80	_	-	_	-	_	-
Fleet House	:	22-22	88.0	8 Mar.	:	8	7	0	18	17		9	_	_	_	_	_	_
Chickerell, Montevideo	:	22.15	0.83	œ	:	æ	14	2	22	ន	_	-	_	_	_		_	_
Upwey Waterworks	:	24.16	06.0	2 Aug.	:	\$	14	13	ន	18	-	00	_		-	-	_	_
Abbotsbury, New Barn	:	22:27	0.8 7	9 Sept.	:	17	=	23	21	18	_	'n	_	-		-	_	_
Bridport, Coneygar	:	26.81	1:14	10 Nov.	25		-	2	12	17		4	_		_	_	_	_
Lyme Regis, Colway Cottage.	:	25.61	1.15	12 ,,	61	ž	12	14	22	22	_	4:	_		_		_	_
Beaminster, Fleet Street	:	26.62 20	1.40	91	4	16	œ	75	ន	17	_	9	_		_	_	_	_
". The Vicarage	:	30.15	1.38	: :	4	25	6	2	ន	18	-	9	_	_	_	-	_	_
Broadwindsor, Blackdown House	:	32.33	1.74	2 Aug.	•	81	11	23	22	ន	-	00	_		_	_	_	-
., The Vicarage.	:	31.30	1.24	10 Nov.	00	17	15	ន	22	18	_	۲.	_		_	_	-	_
	:	30.31	1.28	10	4	18	6	22	ន	16	-	*	_	_	_		_	_
Melbury Sampford	:	30.32	1.52	2 Aug.	*	=	-	G	18	12	_		_	_	-	_		_
" Bubb	:	31.92	1.60	2						_		-				_	_	_
Chetnole	:	28-70	1.40		67	ଛ	Ξ	2	엃	77	_	18	& &		8	13	3	185
Sherborne Castle	:	24.98	800	10 Nov.	:	17	=	=	컮	7	_	4	_	_	_	-	_	-
Holwell, Westrow	:	58.85 -	0.92	10 Mar.	:	6	_	2	22	15		7.	_	_	_		_	_
Cattistock Lodge	:	83.19	1.35	2 Aug.	•	42	16	8	22	83	_	00	_		_	_	_	_
Littlebredy Parsonage	:	29-48	1.19	20	م	82	a	15	83	<u></u>	_	6,	_	_	_	_	_	
Winterbourne Steepleton	:	81.50	1.55	9 Sept.	*	19	15	71	83	೩	_	4	_	_		_	-	-
Herringston	:	27.61	1.58	6	~	82	~	=	13	18	_	4	_			-	-	-
Dorchester Waterworks		27.65	1.18	6	67	22	12	9	23	19	_		_	_	_	-	_	
Wollaston House	: :	28.15	1.23	10 Nov.	*	31	14	ន	21	ន	2	9	4	_		_	_	_
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TABLE III.—STATISTICS OF THE TEMPERATURE OF THE AIR AND OF THE HUMIDITY AND AMOUNT OF CLOUD AT WINTERBOURNE STEEPLETON MANOR AT 9 A.M., KEPT BY MR. H. STILWELL.

			Temper	sture of	the Air.	•			
		In Stev	enson's	Screen.		On C	łrass.	130	10.
1905.	A	verage	of	Extr	emes.	west.		Humidity.	Cloud.
	Highest.	Lowest.	Daily.	Highest.	Lowest.	Average Lowest.	Lowest.	Humid Saturation	Over
	•	•	•						
January February March March April June June July August September October November December	45.8 47.6 50.8 52.2 61.3 65.1 71.3 66.0 62.4 53.8 48.4 46.2	82·5 36·6 37·8 39·6 41·5 50·4 53·4 50·9 47·5 36·9 32·2 35·8	89·2 42·1 44·1 45·6 50·8 57·2 61·7 58·0 54·6 45·1 40·8 41·2	54·9 55·1 60·5 58·3 69·7 76·5 78·9 74·2 72·0 62·5 54·3 53·5	20·0 27·2 24·3 29·5 29·0 42·0 39·8 40·7 35·6 22·2 18·3 24·0	29·0 33·9 34·9 36·4 47·2 49·6 46·9 44·2 33·2 29·8 33·6	14.6 21.2 20.0 25.2 23.0 37.4 34.1 35.7 32.2 17.0 14.6 19.5	87 87 87 85 70 81 75 78 83 84 90 98	6.5 7.0 9.5 7.0 7.5 6.0 6.3 7.6
Year	55.9	41.3	48.4	78.9	18.3	38.0	14.6	83.3	6.8





Worgret Hill and the Wareham Water Supply.

By W. H. HUDLESTON, M.A., F.R.S., F.G.S.

have been undertaken for the purpose of supplying the town of Wareham with water cannot fail to draw the attention of Geologists and others to the many interesting problems which an intimate study of this remarkable piece of ground presents. There is no

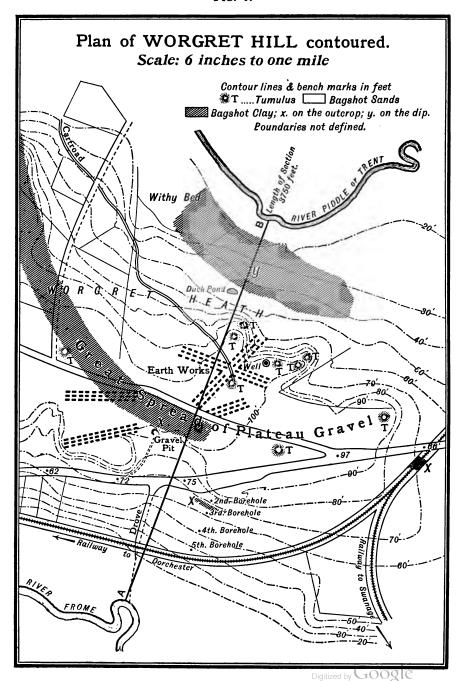
intention on this occasion of going seriously into the economic aspect of the subject, but

GHE operations, extending over some years, which

there are certain points in connection with Worgret Hill which may possibly interest some of the members of the Dorset Field Club. These relate both to its superficial aspect and its internal (i.e., geological) structure.

TABLE OF CONTENTS.

					PAGE
Worgret Hill and Dykes	-	-	-	-	149
Geological Position of Worgre	t Hill	-	-	-	151
History of Operations for Wat	er Supply	-	•	-	153
Neglect of Opportunity	•	-	-	-	155
Worgret Well and Borehole wi	th Table s	howing	details	-	156
Geological Details of the Beds	proved in t	the Well	and Bore	hole	159
Report to the Town Council of			-	-	164
Reflections on the Report	-	-	-	-	166
Structure of Worgret Hill	-	-	-	-	169
Concluding Remarks -	•	-	•	-	172



WORGRET HILL AND DYKES.

Worgret Hill (see Plan, Fig. 1* and section, Fig. 2) is situated about one mile to the west of the town of Wareham, and is crossed by the high road from that town to Dorchester. To any one coming from Wareham it presents the first sharp rise from the low platform on which Wareham is built,† and the contour map shows us that it consists of an elevated platform with steep sides, sloping to the South and North rivers respectively. This platform, which may be said to commence with the 90 feet and 100 feet contours, rises very slightly to the westward, always capping the massif which separates the two valleys, the rivers approaching within three-quarters mile along the line marked A-B on the Plan, but afterwards diverging widely. The platform, which is generally covered with a great spread of Plateaugravel, in its westward rise, reaches 131 feet at the top of Binnegar Lane (14 miles approx.); thence to Hethfelton corner, attains 162 feet (11 miles); thence to the Cross Roads on Bere Heath, attains 231 feet (13 miles). Thus in its westward extension the platform, of which Worgret Hill presents the easterly termination, may be said to gain 131 feet in 4.5 miles = 1 in 181.

Throughout this long stretch of level upland there are indications of an extensive dyke, known in some places, and especially on Binnegar Plain, as "Battery Bank." We need not, on the present occasion, follow this dyke in its westward extension, but the complex series of earthworks in connection with it, which are still partially preserved at Worgret, call for some description; also the many tumuli hereabouts are worthy of notice.

^{*} The Ordnance 6in. Map is contoured at 50 and 100 feet. The intermediate contours on the Plan were fixed approximately by myself and Mr. Bloomfield during the winter of 1905-6.

[†] The cross roads in the centre of Wareham mark 21:1 feet above O.D.

Hutchins (3rd Edition, Vol. I., p. 108) observes "There are several barrows in the neighbourhood of Worgret. One of large size was destroyed some twenty-five years ago (dating from 1861), its materials being required to mend the adjoining road. Between twenty and thirty urns were discovered, which, from some specimens still preserved, appear to have belonged to the earliest era of barrow burial. At the west end of the village, on the brow of the hill, are rude ramparts of earthworks very confused and ill-defined, which are probably the relics of a very early Celtic location contemporaneous with the barrows above mentioned."

Notes from Warne's "Ancient Dorset" (1872). Referring to the defensive and military works of the Durotriges (p. 33) he mentions an inherent defect, viz.: "their almost universal deficiency in and want of water."

Elsewhere the same author, whilst combating the notion of the existence of a Roman road out of Wareham, says that "A careful examination of the neighbourhood fails to disclose any such road, although there are traces of a British trackway which, proceeding from this town, ultimately becomes lost or confused with a dyke which in many places is to be seen as a marked object, pursuing a very irregular course westward through the district of Durngueis" (Saxon Thornsaeta). He was then referring to "Certain ditches in Dorset called Belgic."

On the whole, neither of the above quoted authors gives us much information as to the really remarkable series of earthworks, whose position may be gathered from the Plan of Worgret Hill (Fig. 1). The principal earthwork hereabouts, which is close to the mouth of the Well, is in the form of a cross, and it is obviously a flanking termination to the long series of straight dykes stretching away to the westward. Besides its object as protecting the eastern flank of the general system, the northeastern limb of the cross in passing over four contour lines connects the dry plateau above with the springs which ooze out of the hill side at the junction of the Higher Sands (see Fig. 2) with the Higher Clay. In this particular instance, then, the

criticism of Warne, above quoted, does not apply, since the system of earthworks seems to have secured for its occupants a sufficient water supply. Moreover, there is a probability that by means of this peculiar cruciform dyke communication was maintained with a dyke running at a much lower level through what is now Wareham Common in the direction of this bend of the North river. No one who stands on the eastern edge of the Worgret platform, in view of the fine spread of country towards the great estuary, can have any doubt as to the strategic importance of this commanding and peculiar position which must have been recognised from the earliest ages. Whoever constructed this complex series of earthworks must have been alive to the necessity of a flanking protection for the "Battery Bank" system, and also to the importance of maintaining touch with the lower country which the sudden drop in the height of the platform seems to require. The numerous single tumuli further attest the interest of the position. On the whole it is a matter of surprise that the archæologists have not investigated this place with more attention to detail.*

GEOLOGICAL POSITION OF WORGRET HILL.

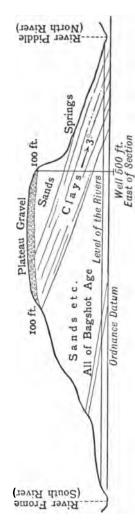
As regards its geological features, Worgret Hill may be said to occupy a central position in the great trough or syncline of Wareham,† being about equidistant from the outcrops on either

^{*}The following note from Mr. J. A. Drew is dated June 22nd, 1906:—"I have traced the ancient roadway or dyke, which appears to have commenced from the direction of the N.W. corner of the Town Walls, and continues through the Common and across the low ground north of Worgret Hill to the foot of the dyke running north and south, which forms the western boundary of the Waterworks site. Is it possible that the ancient earthworks which form the Walls of Wareham belong to the same period as these dykes, which are so numerous in the heath land around the town? The formation of some of the dykes is similar to the Walls, viz., a central mound with a vallum on either side, from which the earth was taken to form the mound."

[†] For a diagrammatic sketch of the Trough of Wareham, see Proc. Dorset Field Club, Vol. XXIII., p. 148.

FIG. 2.

WORGRET HILL.—SECTION ALONG THE LINE A-B OF THE PLAN (FIG. 1).



Length of Section, 3,750ft.

Scale, 6in. to 1 mile.

Vertical scale greatly exaggerated.

N.B.—The second water was tapped at 108ft. below the surface in the first borehole. Superficial beds (excepting Plateau-gravel) not shown in this section. The exaggeration of the vertical scale increases, in appearance, the angle of the dip. This angle is believed to diminish in the direction of the Frome Valley. side. Except for Plateau-gravel on the summit platform it consists wholly of clays and sands of the Bagshot series, and it is the alternation of these which constitute its water-bearing capacities (see section, Fig. 2). These Bagshot Beds extend for an unknown depth downwards, and quite possibly hereabouts attain their maximum thickness so far as this part of Dorset is concerned. I hope to take this subject into consideration presently when we have considered briefly the history of the well-sinking.

HISTORY OF OPERATIONS FOR WATER SUPPLY.

In the year 1898 a trial borehole was made at Worgret by Messrs. Pike Bros., and in 1899 the sinking of the Well commenced. Mr. Drew informs me that the Well was sunk about twelve feet north of the borehole, and it was observed that practically the same formations were passed through as were found in the borehole with the exception of there being a slight dip of the strata towards the north. It will be seen subsequently that I consider the full dip to be somewhat east of north. On the occasion of my first visit to the Well (November 18th, 1889) the sinking had been in progress for some time, and the workmen were nearly fifty feet down in the wet sand which contains the top water, from which it was thought at one time that a supply might be taken. Later on (December 13th) I received a letter from Mr. Drew with a sample of carbonised wood found that morning at a depth of 82 feet from the surface. The sinker picked out about half a bucketful whilst Mr. Drew was in the Well. Stems, leaves, and fruits were also found subsequently. The material here is a pale-coloured pipeclay. said to be of inferior quality, and the vegetable remains on the whole not unlike those from the clay workings at Norden and elsewhere. The fruits are fairly similar to those so abundant in the Bournemouth Beds, but on the whole more oval-elongate. After getting through the Higher Clay an abundant supply of

154 WORGRET HILL AND WAREHAM WATER SUPPLY.

water was found in a coarse silicious sand with much "lydite," struck at about 108 feet from the surface, and this water rose to a level of 91 feet from the surface in the Well. Borings were subsequently continued about this period to a depth of 121 feet from the surface.

In November, 1900, there was a fortnight's test-pumping, when the flow was found to be 94 gallons per minute. In August, 1901, the permanent pumps were fixed, and in November of that year a further test-pumping yielded 56,000 gallons of water in ten hours. There seems to have been some suspicion as to the turbidity of the water, and Mr. Chatterton, the engineer, then felt satisfied that if some turbidity still existed it could be got rid of by deepening the Well.

In June, 1902, the depth of water in the Well was 8ft. 10in. Samples of the water were taken from the Well for analysis. Mr. Drew supplies the following particulars as to the quality of the water. According to the analysis of Dr. Comyns Leach, the water (filtered from sediment, it is presumed), contains eight and a-half grains of dissolved mineral matter per gallon. The amount of chlorine found indicates that some of this must be common salt. No lime is mentioned in this analysis, but there is about half a grain of iron per gallon. On the whole the water is so soft that it will have to be artificially hardened in order to reduce its solvent action on lead pipes, &c. The amount of organic matter is small, and there are no prejudicial nitrogen compounds. Like most Bagshot waters a slight opalescence is noticeable.

On the 4th February, 1903, an enquiry instituted by the Local Government Board was held at Wareham, in the matter of the application of the Town Council to borrow a certain amount for the purposes of a water supply. This was sanctioned in September, 1904, and the tender of Messrs. Docwra and Sons, to carry out the works was accepted. These works consisted chiefly in making a reservoir on the top of Worgret Hill, and in laying the mains to and throughout the town of Wareham. During the operations Messrs. Docwra used a considerable quantity of water



from the Well, and it was found to be still turbid with much fine sand.

There was still some dissatisfaction at the turbidity of the water, and in June, 1905, cavities in the sides of the Well had to be filled with gravel.* It was also decided to start a borehole from the bottom of the Well in the hopes of finding a more satisfactory supply of water. On October 7th, Mr. Chatterton, the engineer, wrote to the effect that the test pumping showed that the boring yielded practically no further supply of water. At that time the borehole had passed through the second great Sand-series, and was already encountering some grey and mottled clays, which he conceived might indicate the presence of the Reading Beds, and that possibly the Chalk was not far off; after going through this Clay-series for thirty or forty feet further, he began to have his doubts as to the position, since there was no change in the nature of the ground, the boring being still in the grey clay. It was pointed out that the samples brought up tallied with the regular pipeclay series of the Bagshots, and that the Chalk was still far distant. The boring was carried through these clays to a depth of 215 feet from the surface, and on the 30th October operations were finally discontinued.

NEGLECT OF OPPORTUNITY.

It is almost a matter for regret that some public body did not take this opportunity of ascertaining once for all the actual thickness of the Tertiary Beds in the centre of the Trough of Wareham. Nevertheless, we have gained some little geological knowledge from the operations for obtaining water, and the structure of Worgret Hill thus displayed may help to throw

^{*} In June, 1905, the Well was thoroughly examined, small iron tubes were inserted through the brickwork lining the Well, and fine cement was blown in to fill up any space existing between the brick lining and the side of the Well. The only cavity of any consequence was found at the back of the iron cylinders at the bottom of the Well, and this was also filled with cement.

156 WORGRET HILL AND WAREHAM WATER SUPPLY.

some light on the development of the Bagshot Beds in East Dorset.

In order to understand what follows it will be necessary to give a detailed description of the beds which were passed through in the combined sinking and boring operations undertaken for the Water Supply.

WORGRET WELL AND BORRHOLE.

Details of beds from 101 feet above Ordnance Datum to 114 feet below Ordnance Datum. In this enumeration the Bagshot Beds are divided into four groups, A-D, based on lithological characters, as shown in the accompanying table.

See also Tabular Column (Fig. 4).

Details of Worgret Well and Borehole.

- A. Higher Bagshot Sand Series.
- B. Higher Bagshot Clay Series.
- C. Second Bagshot Sand Series.
- D. Pipeclay Series.

	Pleistocene.		ness. In.	Der Ft.	
x.	Plateau-gravel	9	0	9	0
	Bagshot Beds.				
A.	a. Fine dry sand, gradually getting coarser	28	6		
	b. Sandy loam	6	0		
	c. Fine dry sandy loam, white in colour	5	0		
	d. Fine sand, waterlogged	6	0		
	Total A	40	o	49	0



В.	(The Top Water.) Loamy clay, gradually becoming more	Thick Ft.	ness. In.	- 4	pth. In.
	sandy towards the base. No divisions were made in this series. Total B	54	6	103	6
C.	a. Streaky beds of sand and loam from one to three inches thick (The Second or Main Water. At 108 feet the water came in and rose to 91 feet.)*	4	6		
	b. Coarse dark sand	4	o		
	c. Coarse sand, getting finer below	9	0	I 2 I	0
	(Termination of the original boring.)				
	d. Pyrites, sand, and wood	I	0		
	e. Alternations of grey sands and clay	8	0		
	f. Thick grey sand	I 2	6		
	g. Alternations of grey sand with some				
	grey clay	20	0		
	h. Very coarse dark grey sand	3	6		
	Total C	62	6	166	0
D.	places. The specimens submitted				
	were mixed	10	6		

^{*}According to a letter received from Mr. Drew on the 9th May, 1906, the following points may be noted. The engineer's plan shows the bottom of the well to be 100 feet from the surface, and the mean depth of the water is 9 feet, the level of the water being about 91 feet from the surface. The water was tapped in the well when a depth of 91 feet was reached, probably because at this spot the loamy clay was streaked with sand; whilst 12 feet away, in the trial borehole, the water was not tapped until a depth of 103 feet was reached, the clay here being more solid and homogeneous.

158 WORGRET HILL AND WAREHAM WATER SUPPLY.

b. Stiff yellowish clay, compact, and rather	Thick Ft.		Dep Ft.	
heavy, also mixed	9	6		
c. Mixed bluish grey and yellow clays, rather gritty. The specimen sub-				
mitted was merely a hand-rolled ball	4	0		
d. Reddish ochry clay, staining the fingers				
like ruddle	1	0		
e. Additional boring not detailed. Ter-				
minates in grey pipeclay	24	0		
Total D. (proved)	49	0	215	0

In explanation of the above table, it may be stated there is no longer any idea of making use of the top water,* and that all the calculations as to supply refer to the second or main water. This is considered to be sufficient in amount for all the requirements of Wareham, but unfortunately it takes so long to clear from fine sand as to be detrimental to the pumps. It is worthy of note that the normal water level in the Well stands at a height of 91 feet from the surface. Pumping may lower the water level in the Well to 97 feet below the surface, but no amount of pumping can reduce the water level below this point. Hence, Mr. Drew infers that there is a leakage in the upper six feet of water, but that below this horizon there is no lateral escape. In connection with this subject it may be useful to remember that the whole of the 62 feet 6 inches of the Second Sand-series (C. of the column) is saturated, and these saturated beds rest

^{*} With reference to this subject, Mr. J. A. Drew writes as follows:—In 1899, the upper water was allowed to run by an overflow pipe through the side of the well and fall to the bottom water; it was frequently measured in July and August of that year by timing how long it occupied to fill a 50 gallon bucket, and the minimum flow was found to be 12 gallons per minute or 17,230 gallons per 24 hours. This water was allowed to run to waste many months without exhausting the supply. The pump in the well is arranged so that this supply can at any time be utilised.



on the second Clay or Pipe-clay-series of the Bagshots (D of the column) at 166 feet below the surface * The second water was first tapped in a water-logged sand at a depth of 108 feet from the surface, and there is this anomaly in the situation, viz., that this water is much closer to the Clay-series (B) which holds down the water, than it is to the Clay-series (D) which holds it up. These points will be further considered in connection with the section (Fig. 2) through Worgret Hill, A-B of the plan (Fig. 1). It may be that the proximity of a roof of clayey beds to the stratum from which the water is actually drawn, has a tendency to increase the amount of fine sediment which hitherto has proved to be so prejudicial to this water.

GEOLOGICAL DETAILS OF THE BEDS PROVED IN THE WELL AND BOREHOLE.

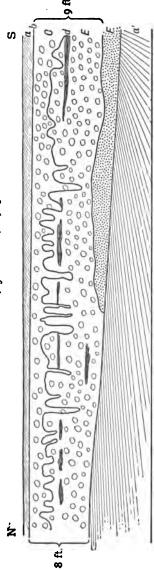
The Plateau-gravel (x. of the column).—This is generally regarded as a Pleistocene formation, but is certainly one of high antiquity, since it apparently antedates the formation of both the valleys, viz., those of the Frome and Pydel, which flank the block of Bagshots on which it rests.† It is of some importance economically since the best road metal of the district is obtained from these beds. Worgret is the eastern termination of a continuous strip of this Plateau-gravel, which, as previously mentioned, extends westwards to the neighbourhood of Gallow's Hill. The thickness of 9 feet recorded at Worgret is a fair average one, though another spread of it on the south side of the Frome attains a thickness of 18 feet on Ower Heath.

^{*} The late Mr. L. W. Pike informed Mr. Drew that throughout the area of Furzebrook and Grange, where his operations for clay where carried on, he invariably encountered at the same level a body of water which he believed to be identical with that found in the well at Worgret.

[†] See Proc. Dorset Field Club, Vol. XXIII., pp. 149, 150, article "Creechbarrow."

Fig. 3.

EASTERN FACE OF THE EXCAVATION IN THE PLATEAU-GRAVEL FOR THE RESERVOIR AT WORGRET, JANUARY, 1905.



EXPLANATION OF SIGNS-

- a. Surface of the plateau.b. Summit line of the exce
- Summit line of the excavation.
- C. Plateau-gravel, bleached by the action of peaty acids, grey in colour.
 - d. Lines of exceptional accumulation of black oxide of manganese. E. Lower portion of the Plateau-grayel, retaining for the most par
- but irregularly stained with black oxide of manganese, and piped by the action which Lower portion of the Plateau-gravel, retaining for the most part its original yellow colour, has altered the colour of the gravel above.
- F. Bagshot sand in situ, on which the Plateau-gravel rests.
- a'. Floor of the reservoir.

A very interesting and instructive section of these beds was disclosed in January, 1905, during the excavation for the reservoir on the summit of Worgret Hill. The excavation was more or less a true square, and I selected the eastern side as a type of the whole (see Fig. 3, based on a photograph taken by Mr. Churchill). The face of gravel here is remarkably vertical, and the gravel holds together so well as to cause surprise to some of the workmen. The peculiar interest of the section at the reservoir arises from the discharged colour noticeable in the upper part of the Plateau-gravel owing to the action of peaty acids having dissolved out or reduced the colouring matter, chiefly iron and manganese oxides. This no doubt may be seen to a certain extent in most gravel pits; but here a further feature has been produced, viz., the irregular piping of the yellow unreduced gravels by percolation from above. The details of the case are explained in the legend attached to Fig. 3. There is a quarry at the extreme eastern end of Worgret Hill where the same peculiarity is noticeable. As this represents the end of the spread of Plateau-gravel, it may be that lack of lateral support has produced the tendency to piping.

Particulars of the Bagshot Beds.

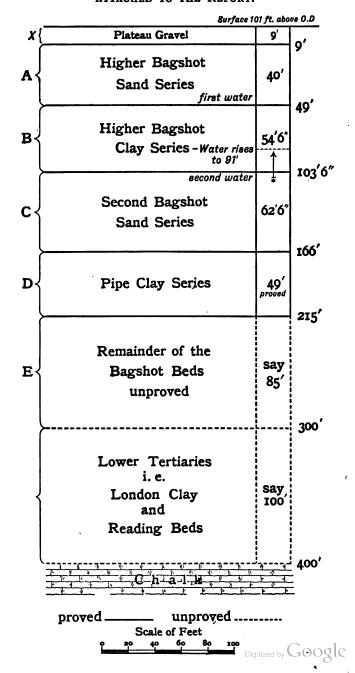
The Higher Sand-series (A).—The general character of these beds on the surface is that of the ordinary pale yellow Bagshot Sands of the district. The water-logged sands at the base (A. d of the column) described as fine in the section, are certainly coarse, where they are seen to come out on the dip slope, and contain much water (the top water).

The Higher Clay-series (B).—Some of the features of this group have already been described under the "history of operations." The fruits and plant remains are approximately on the same horizon as those from Norden and Bournemouth.

The Second Sand-series (C).—The most interesting bed in this series is the one indicated in the table as C. b which contains such a large quantity of water. This is composed of angular

Fig. 4.

Tabular Column of Worgret Well and Borehole
Attached to the Report.



grains of a highly crystalline quartz: the larger fragments are dull or fatty and range up to $\frac{1}{2}$ in. There is also a considerable amount of dark coloured siliceous fragments, such as go under the general term of "lydite." The remaining beds of the Second Sand-series call for no special remark, being in general character typical representatives of the Bagshot Sands of the district. These are the beds which outcrop on the south-west slope of Worgret Hill (see Fig. 5), but any attempt to correlate them with their equivalents in the borehole section would not be likely to meet with much success. They are stated to be wet sands throughout the borehole, but do not appear to have yielded any notable amount of additional water to the supply.

The Pipe-clay Series (D. of the general section).—As this group is only known from boring, the arrangement of the details is somewhat arbitrary since the several clays were much mixed. There can, however, be little doubt that series D represents the Pipeclay Beds of the northern and southern outcrops, though inferior to the clays of the southern outcrop in Much the same varieties of clay as we find in the Creech district came up from the borehole, and there was no difficulty in recognising the greyish-white pipeclays alternating with the inferior or variegated varieties known in the workings as "two-ball" clay. There are, however, some differences, and on the whole the samples of these clays do not seem to have attracted the notice of the clay-merchants. The last 24 feet of the borehole were gone through rather quickly, and no particulars are given beyond the fact that the borehole terminated in grey pipeclay at a depth of 215 feet from the surface, or 114 feet below O. D.

At this juncture of affairs the Wareham Town Council requested me to draw up a report (October-November, 1905) on the geological position as revealed by the boring rod, and on the possibility of a further supply of water either from the Tertiary Beds or from the Chalk. At the risk of some slight repetition I reproduce this report with the accompanying tabular column (Fig. 4).

REPORT TO THE TOWN COUNCIL OF WAREHAM.

"The position of Worgret Hill is towards the centre of the syncline or trough of Wareham, so it is probable that the Bagshot Beds may attain considerable thickness at this spot. The mouth of the Well is situated almost on the 100 feet contour, and the sea-level line would thus lie towards the base of the Higher Bagshot Clay series (B. of the tabular column).

"The actual surface is formed by 9 feet of Plateau-gravel, a Pleistocene formation which occupies much of the elevated flat between the North and South Rivers, and which has its easterly termination at Worgret. This Plateau-gravel rests upon the Higher Bagshot Sand series (A. of the tabular column) at the Well, but a few hundred yards towards the S.W. it is seen resting on the Higher Bagshot Clay series (B. of the tabular column). From this circumstance it may be inferred that there is a considerable dip of the Bagshot Beds in a north-easterly direction—probably about three degrees. Hence the natural discharge of water from this Higher Bagshot Sand series is towards the North river, and in this direction springs are thrown out where series A (sands) rests upon series B. (clays). (See Fig. 2 for confirmation.) This also represents the uppermost water-line of the well section about 50 feet below the mouth. The outcrop of this Higher Bagshot Sand series is so limited that there could only be a moderate supply.

"The Second Bagshot Sand Series (C. of the tabular column) represents the chief water-bearing strata, and the upper part of this series is pretty tightly packed by more than 50 feet of the overlying Bagshot Clay (B.). Assuming the same dip of 3° towards the north-east to prevail, this sandy series should hold a large supply of water from the region lying to the southwest. It is from the upper part of this series that the actual supply of water in the Well is obtained. There appears to be no apprehension as regards the quantity of water. Yet no amount of rest from pumping seems to have much effect in causing a diminution of the fine sediment. I can only say that further



boring in the Bagshot Series is not likely to improve matters, and a similar difficulty would most propably arise if a lower water-bearing stratum in the Bagshots was tapped. To purify the existing supply of water is an engineering, rather than a geological, question.

"When we come to speculate on what lies below the termination of the borehole (215 feet from the surface), it is almost impossible to predict what may be the thickness of the remainder of the Bagshot Beds. Below the pipeclay series it is almost certain that another sandy series would be encountered as constituting the base of the formation, and there may be bands of iron grit such as occur on this horizon at many places in the Isle of Purbeck. None of the Government geologists, so far as I know, give us any assistance in estimating the thickness of the Bagshot Beds at their full development in Dorset.

"The Lower Tertiaries .- We may naturally conclude that both the London Clay and the Reading Beds will have to be encountered ere the Chalk can be reached. Very little is known about these beds, which are best studied, perhaps, on their outcrop in the Wool district. In a borehole section it may not be very easy to distinguish between Bagshots and London Clay, as the latter formation in this country consists largely of sand. Probably the most distinguishing feature of the London Clay is the amount of black flint pebbles which it contains, and which are sometimes cemented by iron-oxide into a most intractable conglomerate. The Reading Beds are also mainly sandy, but side by side with these sands are developments of mottled clays largely used for brick-making. A total thickness of 100 feet for the London Clay and Reading Beds is, perhaps, fairly approximate. It is quite possible that some of these Lower Tertiaries may contain good water-bearing beds."

"On the possibility of obtaining water from the Chalk.—There would probably be no intention on the part of the Borough of Wareham to sink a well to the Chalk under any circumstances. But if an artesian supply of water could be obtained it might prove an advantage. Certainly the shape of the trough of

Wareham is rather in favour of such a possibility. It might not be safe to predict that there would be an artesian supply, though one might expect the upper part of the Chalk to be water-bearing. Still, the experience of the Spyway boring, in a plantation near Moreton, is by no means re-assuring. At this place the Lower Tertiaries were found to be at least 90 feet thick (sand and clay), and a further boring of 112 feet was made into the Chalk without finding water. I scarcely apprehend that such would be the case at Worgret; yet the conditions are so uncertain that no great hopes can be based on obtaining a supply from this quarter."

"Conclusion .- Bearing in mind the above considerations, there seems but slight justification for the Council to continue boring operations with a view to obtaining a better supply of water. By far the best plan, it appears to me, would be to attempt to improve the quality of the water in the existing well. Although it seems scarcely justifiable to employ the ratepayers' money in further boring operations, yet it is a matter of considerable interest to obtain a complete section of the Tertiary Beds in the centre of the trough of Wareham. Both on scientific and on economic grounds this is highly desirable. Moreover, since tackle is now on the spot, no better opportunity could be afforded for solving the problem of the Tertiaries in this part of Dorset, and testing at the same time the possibility of an artesian supply of water from the Chalk within the region included in the central portion of the trough of Wareham; the necessary funds might possibly be collected by subscription."

REFLECTIONS ON THE REPORT.

The main interest, from a geological point of view, consists in the estimated thickness of the unproved Tertiary Beds down to the Chalk. As regards the Bagshot portion of this unknown quantity, I may refer to two short memoirs by the Government Surveyor, Mr. Clement Reid, F.R.S., "Geology of the country round Bournemouth" (1898), and "Geology of the country

round Dorchester" (1899). In the former memoir the author (page 3) speaks of several hundred feet of sands, interbedded with numerous lenticular masses of carbonaceous loam or clay containing fossil leaves, as resting on the London Clay. These are the Bagshot Beds, the strata being mainly of fluviatile origin. It is evident from the position assigned to the principal pipeclay beds round Poole Harbour, viz., about 200 feet above the London Clay, that they hardly occupy the same position in the Bagshot system as the great series of claypits between Creech Grange and Corfe Castle.

In the "Geology of the country round Dorchester" the same author remarks (p. 25), that "At the eastern margin of the area described in this memoir, the Bagshot Sands are of the same type as those round Poole and Bournemouth." That is to say that the Bagshot Beds are mainly constituted of sands mixed with lenticular clay bodies. As regards the total thickness of the Bagshot system in the Wareham district we have no direct information from Mr. Reid, but the following passage (p. 25) may possibly throw some light on the as yet unproved strata below the termination of the Worgret borehole. "Close to Organ Ford, and for nearly a mile to the westward, white pipeclay mixed with carbonaceous clay can be seen in the road south of the stream. This bed is apparently equivalent to the stratum that is worked at its southern outcrop round Creech, though at its northern outcrop it does not appear to be more than 50 feet above the London clay." The statement is important as showing that in the neighbourhood of Organ Ford, rather more than three miles due north of Wareham, the Pipeclay series, towards its northern outcrop, is quite low down in the Bagshot system. Now, when we come to consider the bearing of these facts on the hypothetical estimate of 85 feet for the "Remainder of the Bagshot Beds unproved," as given for series E. in the Tabular Column (Fig. 4) attached to the Report, it seems to encourage the belief that, when the boring rod reached 215 feet from the surface of the Worgret Hill plateau, 85 to 100 feet would be a fairly liberal estimate of the thickness of the remainder of the

Bagshots. The chief element of uncertainty lies in the fact that the pipeclay series was not gone through, but we may assume almost with certainty that a *third* Bagshot Sand-series, with a development of 60 or 70 feet, would still have to be encountered ere the Lower Tertiaries were reached.

When the next engineer tries to bore through the beds comprising the Wareham syncline he must not forget that, after penetrating the Bagshots, he still has to deal with the Lower Tertiaries, i.e., the London Clay and Reading Beds. Thus a fairly correct estimate of their combined thickness becomes a matter of importance to the general problem. On reference to the Tabular Column (Fig. 4) it will be seen that a development of 100 feet was hypothetically assigned to these beds. The London Clay of Dorset, like that of the Thames basin, where it is so much more important a formation, is believed to be of marine origin, whilst the Reading Beds are regarded as From a palæontological point of view both are extremely unsatisfactory, and if the London Clay of Dorset really is a marine formation, the total absence of fossils has received no explanation. To judge the thickness of these beds at Worgret with accuracy is no easy task. In Studland Bay the Reading Beds are estimated by Mr. Strahan (Geology of Purbeck, etc., pp. 170 and 191), at from 50 to 60 feet, and the London Clay, he considers from its outcrop, to have a thickness of about 80 to 100 feet. The minimum thickness of the Lower Tertiaries at Studland, therefore, would be 130 feet, and the maximum 160 feet,—mean 145 feet. Studland Bay is, of course, a considerable distance from Worgret, and there might be some diminution of volume. In the Spyway boring near Moreton, as we have seen, a borehole started in the London Clay passed through 90 feet of beds before reaching the Chalk. us a minimum of 90 feet for the Lower Tertiaries without including any part of the London Clay which may be above the mouth of the borehole at Spyway. It would probably be safe to add some 20 or 30 feet to my original estimate of the Lower Tertiaries as given in the tabular column of the report. Hence,

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reviewing all the facts of the case, one might say that in a borehole starting from the Worgret plateau the Chalk should be reached at a depth of from 400 to 450 feet from the surface.

STRUCTURE OF WORGRET HILL.

Having dealt with the history of the Well and the questions more directly arising in connection with it, there yet remain a few points of interest as regards the structure of Worgret Hill and the possibility of correlating the beds of the well and borehole section with their equivalents on the outcrop. Those who know the Bagshot Beds will agree that this is by no means an easy task, and the results are not altogether satisfactory. In this connection the reader should consult the plan and section of Worgret Hill (Figs. 1 and 2), and particularly the folding plate (Fig. 5), where the well and borehole section is contrasted with the outcrops at several points on the south-west slope of the hill itself.

Towards the end of October, 1905, in conjunction with Mr. Bloomfield, I spent some time in making a traverse from the "Gravel Pit" (see Plan, Fig. 1), to the well-mouth, the direction being from S.W. to N.E. This traverse is on the plateau slightly above the 100 feet contour, and crosses the Heath road, the distance being about 700 feet. There is a faint cart track leading from the Dorchester high road to that pit. To my surprise, I found the Plateau-gravel here mixed with masses of Bagshot Clays, and we proved on the spot that the gravel rests here on an outcrop of Bagshot Clay of the "bloodshot" or variegated character. From this gravel pit to a point on the Heath road where the south-west arm of the earthworks terminates is about 300 feet, the area being flat or slightly rising towards the N.E. The whole of this space is seamed with old workings in Plateau-gravel resting on clay, and it is clear that there is an important outcrop of clay hereabouts, thus occupying the summit of the plateau for a space. The outcrop of this clay on the above traverse lies mainly just above the roo feet contour,

whilst about 1,000 yards away, in a north-westerly direction, presumably the same clay was at one time worked on the Binnegar Estate between the 100 feet and 50 feet contours. On the Plan of Worgret Hill (Fig. 1) this spread of clay is roughly indicated in an elongated patch, which terminates on the western edge of the Plan close to the old brickfield. It is not claimed that the position is laid down accurately throughout, nor is it possible to define the boundaries of the outcrop.

On crossing the Heath-road to the north side, the indications change at once, and there is every appearance that the Plateau-gravel rests upon sand, as is the case at the Waterworks. Thus in this traverse the line of the road approximately marks the top of the clay series. From here to the well-mouth is a distance of about 700 feet, and this traverse may fairly represent the outcrop of the Higher Sand (A. of the column). There is an excavation very near the centre of the cross in the main earthwork, but inclining somewhat towards the north-west arm, where the Plateau-gravel is seen to rest on sand, and it is noteworthy that the inclusions in the gravel are of a sandy nature, whereas, as we have seen, at the old gravel pit they are of a clayey nature.

On referring to the details of the Worgret well and borehole, it will be seen that the upper surface of the clay series (B.) is about 50 feet below the mouth of the well, whereas on the Heath road it may be said to outcrop. The distance between these points, which are approximately on the same level, being 700 feet, there is a fall of I in 14 exactly north-east. is equal to 4°, but, allowing for the roughness of the calculation, we may put the dip at 3° S.W.-N.E. On the whole, I conclude that the maximum dip is in this direction, and the dip is probably rather less in a direction parallel to the line A-B. (See note as to calculation of dip on the folding plate (Fig. 5). In Fig. 2, which shows the general structure of Worgret Hill in cross section, the amount of dip is given at 3°, though possibly rather less along that line. Here the spread of the Clay series on the dip makes itself manifest in the amount of water which oozes out at the line of junction with the Higher Sand. The clay marked y on the Plan (Fig. 1) can only be located hypothetically, but there is no doubt it is the same clay series as that in the Well, and also on the outcrop along the Heath road. Inferentially, the intermediate region is occupied by the Higher Sand (A.), but the tract known as Worgret Heath affords little or no opportunity for accurate investigation.

One of the puzzling features of what I may term the Worgret problem lies in the fact that the Higher Clay series (B.) seems suddenly to diminish on the outcrop a little to the eastward of the line A-B. The whole of the eastern end of Worgret Hill is a sandy region, due to the extensive development and outcrop of the Higher Sand (A.). When we begin to feel for the underlying Clay-series (B.) on the south-west slope of Worgret Hill (see Fig. 5), the only indication of the great Clay-series of the Well appears at the top of borehole No. 2, where two characteristic Bagshot Clays, each about 4 feet thick, enclose about 9 feet of variable sands, mostly coarse, the whole series measuring 17ft. 3in.

This is all we can find in this direction to represent the 54 feet of the Clay-series in the Well. The sands enclosed between these two clays are wet and there are indications of moisture such as the growth of rushes close to the mouth of the second borehole, about the 70 feet contour. If we accept this group of beds, with a thickness of 17ft. 3in., as the representative of the Higher Clay, its base is 54 feet above O.D., whilst the base in the well section of the Clay-series is 2ft. 6ins. below O.D., the horizontal distance being 1,450 feet. These figures show an approximate dip of $2\frac{1}{2}$ degrees towards the N.N.E. It is significant that the sands between the two clays in No. 2 Borehole are wet, and it is thought by some that this moisture may indicate the source of the very copious water supply which was first struck at 108 feet from the surface in the well section.

Apart from considerations as to such a limited source for so large a supply, it seems probable that the water-line of the Frome valley, acting on the permeable beds of the Second Sand-series (C. of the Tabular column), produces saturation especially in the

172 WORGRET HILL AND WAREHAM WATER SUPPLY.

upper beds of C. We have seen that when the overlying Clay series was perforated, the water in the upper part of the Second Sand-series was forced upwards to gr feet from the surface, which is about the level of the water-line of the valleys of the Frome and Pydel, along the line A-B of the plan (Fig. 1). Since the dip is north-easterly it would seem probable that the supply in the main comes from the direction of the water-logged beds of the Frome valley, and to a very small extent perhaps from the leakage of the river itself. The almost total absence of carbonate of lime in the well-water is proof that the river itself contributes but little to the supply. The principal outcrops of the Bagshot Beds on the south-west slope of Worgret Hill seem to belong to the Second Sand-series, and if this is the case throughout the slope the north-easterly dip must diminish very considerably as the main valley is approached. These beds are also protected to a certain extent, as shown in Boreholes 3, 4, and 5, by a considerable amount of superficial deposits, which attain an unknown thickness along the 50 feet contour. Otherwise, they are favourably situated for absorbing their share of the total rainfall, and the water so collected must move in a north-easterly direction so long as the beds continue to dip to any appreciable extent.

CONCLUDING REMARKS.

Referring once more to the amount and direction of dip on the south-west slope of Worgret Hill, one would expect to have come across the outcrop of the Lower Clay or Pipeclay-series (D) before reaching the flats of the Frome Valley. This, however, does not seem to be the case, unless the 7ft. 6ins. of "Clayey fine sand" in No. 5 Borehole, may be taken as a partial indication of the Pipeclay-series. This particular bed is well exposed in an adjacent roadway, and weathers very like a pipeclay. But then it is by no means unusual to find a few feet of such pale clays amongst the more sandy Bagshots, and in differentiating these beds it is not always easy to say which is a sand and which is a clay. Hence for all practical purposes we

173

must regard the Bagshot outcrops on the south-west slope of Worgret Hill as, in the main, representing the Second or Lower Sand (C), which measures 62ft. 6in. in the well and borehole section. Decidedly it appears to be much thicker on the outcrop than in the well and borehole section, whilst on the other hand the Higher Bagshot Clay series (B) is, on this outcrop, less than a third of its thickness in the well-section. All this looks as though the sands were thickening at the expense of the clays in this direction, and thus the Higher Clay-series (B) may be a more or less lenticular body thinning out in a south-easterly direction. The only other place where I have noted a clay outcrop hereabouts is in the railway-cutting on the south side of Worgret Bridge (see Plan, Fig. 1). This seems to be an attenuated representative of the Higher Clay-series in an easterly direction, and may possibly hold up water towards the base of the Higher Sands (A) if people at the top of the hill would only sink deep enough. There can be very little doubt, however, that, when the Worgret railway-cutting was made, the supply of water from the Higher Sands in the immediate locality was seriously impaired; the drying up of the old wells at Worgret Farm was a proof of this.

When we try to interpret the results attained at Worgret Hill by means of the numerous boreholes, great and small, it is more than ever a matter of regret that the principal borehole was not completed to the Chalk. We should then have been in possession of a most excellent basis for comparison, and might have been able more effectually to correlate the strata in the central section with the outcrops towards the south-west. The distance from this hill to the nearest Chalk outcrop in the Wool district is about $3\frac{1}{2}$ miles. Whilst allowing for rolls in the strata, the general inclination between the two points is probably a little east of north-east, as the result of the northerly dip due to the syncline in conjunction with the prevailing easterly dip of the basin of East Stoke.

Omitting the Lower Tertiaries and confining ourselves to the Bagshots in this traverse, we find (1) a thick sandy series well

174 WORGRET HILL AND WAREHAM WATER SUPPLY.

developed on Highwood Heath and the Luckford Valley. To this succeeds (2) a very strong and well-marked clay series, which varies to a certain extent and produces the phenomena known as "clay knaps" in Dorset. At West Holme this clay series is well developed, and there is every reason to suppose that its upper surface was eroded before the overlying sandy series was deposited.

The following may be taken as the general section of this clay series as proved on the north side of the hill at West Holme:—

	Ft.	In.
Bed of greyish white pipeclay (sometimes		
missing)	3	0
Strong variegated clays with blood-red specks		
and blotches on a whitish ground	6	0
White clay	2	0
Passing downwards into stiff yellow clay	3	0
Yellowish waxy clay with a ferruginous line		
towards the top	3	0
Herizon of the main ironstone, often of a		
blood-red colour and associated with		
variegated clay	2	0
Clay rather iron-stained towards the upper		
part	4	0
Grey clayey sand without concretions	3	0
Band of flaggy ochreous ironstone	0	4
·	<u></u>	
Total	26	4
		

The above sequence of beds rests conformably on sands which are believed to belong to No. 1, and the clays are capped unconformably by another sandy series (No. 3), which constitutes the summit of West Holme Mount, under protection of an irregular spread of gravel. This third series dips away towards the north-east, but is lost to sight in the valley flats of the Frome.

If we are disposed to make an attempt at correlation, we might say that No. 1, or the Highwood Sands, corresponds in part to E. of the tabular column. No. 2, or the West Holme Clay series, may then correspond to the Pipeclay series, D. of the tabular column; and possibly in the sandy series of West Holme (No. 3) we may see the base of the Second Bagshot Sand series, C. of the tabular column. There are very few people who would so far trust the Bagshots as to believe that in so variable a series any correlation of beds was possible. The general idea is—lenticular masses of clays in the midst of sands, and this no doubt is true to a certain extent. Nevertheless, since the Pipeclay beds have in some places proved of so much value in times past there seems to be an economic, as well as a scientific, interest in making such determinations as are possible with the means at our disposal.

I cannot conclude this communication without expressing my obligations to Mr. J. A. Drew, of Wareham, and Mr. A. H. Bloomfield, of West Holme, for material assistance and much valuable information. The following is Mr. Drew's latest contribution to the subject:—

"Recent pumping has raised a copious supply of clear water fit for public use. The engineer has instructed the Town Council to engage a man to take charge of the works, the reservoirs have been filled, and it is expected that the town supply will be shortly turned on.

One theory of the cause which has produced this satisfactory result, is that an accumulation of fine sand in the bottom of the Well was drawn down into the borehole when the pipes were taken out, and the Well being thus cleansed and deepened slightly, has since yielded a clear supply. I hope this may prove a permanent remedy."

Postscript, 4th September, 1906.

It is gratifying to learn from Mr. Geo. Clavell Filliter, Town Clerk of Wareham, that the water supply from Worgret had been turned on about a fortnight, and so far seemed satisfactory. The water is clear and soft, and apparently there is plenty of it, and this seems to be the general opinion.



Ophiodes or *Eseudophia* Lunaris.

By G. E. J. CRALLAN, M.B.

(Read Feb. 22nd, 1906.)

a contribution to the *Proceedings* I venture to offer an account of the life history of "Ophiodes or Pseudophia Lunaris," a rare moth. I know of no life history of this moth: Barrett gives merely the full-grown larva, copied from another work (Kirby).

It is the only species of the Genus Ophiodes that has been taken in Great Britain. It owes its generic name to the remarkable resemblance of the young larva in appearance and attitude to a small snake. The specific name is derived from the semi-lunar marks on the sixth segment of the larva.

The moth is said to be plentiful in Spain in the cork woods, and in dry oak woods in Austria, South Europe, and North Africa. It is said to be very difficult to see when at rest among dead leaves, but is readily disturbed in the day time. It will come to sugar and light.

The first British specimen was taken by Captain Chawner in 1832 in Hampshire. Others have been taken since, one at the

lighthouse at Lowestoft; two at West Wickham Wood; one at Abbotts Wood, Brighton, Stratton Strawless, and Perth; while two were taken at Killarney by the late Peter Bouchard; the most recent one, in Cheshire, at Delamere on June 1st, 1901.

The moth appears in May and June, and even in April in confinement, two specimens having emerged in my breeding case in April, 1905.

The egg is laid on oak or poplar. When fresh laid it is of a beautiful green colour, ornamented with 14 white ribs in relief, connected by fine horizontal white lines. It is one millimetre in length by two-thirds of a millimetre in height. After about a week the colour changes to a rich red or plum tint, while whitish spots appear in irregular positions.

At the end of the second week the red colour has all passed away, giving place to a drab tint over the lower two-thirds, while the upper one-third has become purple edged with orange, a band of a similar colour edged with orange, and tapering to a point crossing the lower part of the egg. The egg is now translucent, and the markings just described indicate the curled-up larva indistinctly.

The young larva when hatched, on June 6th, is very lively and active, about 4 mm. in length, and appears as if wet or varnished. Colour, greyish-yellow; a double row of dark brown spots along the back; and two similar rows of spots along the sides arranged in oblique pairs. The back of the head is whitish, and there are two dark brown lines, one on each side, which meet at the mouth. There are apparently only two pairs of ventral claspers which are effective, and these are dark brown and long, and protrude sideways like "splay feet," giving a peculiar appearance. A dark hair protrudes from each spot on the back and sides. The larva feeds freely on oak, and when at rest has a remarkably snake-like attitude.

By June 11th the spots along the back and sides have amalgamated into brown lines, which are continuous from the cheeks to the end of the anal claspers.

On June 12th the first moult took place, and the appearance is as follows:—Colour, sooty grey with whitish lines. The mediodorsal line broad, tapering towards the head and bifurcating at the forehead. The lateral dorsal lines narrow and bifurcating on the cheeks. The lateral lines continue on to the cheeks without bifurcating. The ventral area has two pairs of whitish lines. The surface has lost its varnished appearance, and is smooth, but dull. There is a very distinct black spot in the lateral dorsal region behind the last pair of prolegs on the sixth segment, and a pair of similar spots on the eleventh and twelfth segments.

The second moult took place on June 18th. The larva then became of a pinkish grey colour. Along the sides are three whitish wavy lines edged with black. There are two similar medio-dorsal lines, and between them a narrow white line swelling out between the segments and contracted at the segments.

The lateral lines are continued along the cheeks; the dorsal line stops at the head. The head appears black with nine very distinct creamy longitudinal lines. On the sixth segment on each side is a very distinct black spot, with a crescentic cream-coloured spot above it and touching it, and edged with black. The larva when at rest lies at full length along a twig.

On each ventral clasper is a large cream-coloured spot edged with black, and there is a pair of distinct raised black spots on the eleventh and twelfth segments.

Third moult, June 24th. The larva is now rather over an inch long. Head black in the middle, reddish brown at the sides. Two distinct creamy stripes down middle of face and one on eack cheek, each stripe bifurcating. Body dark grey, numerous whitish wavy lines edged with black along the back and sides. Prolegs sienna brown. Claspers large and spreading, and each has a distinct white spot. The crescent-shaped spots on the sixth segment are now golden yellow edged with black.

The eleventh and twelfth segments have small black humps pointing backwards. A reddish line extends along the whole

length of the body on each side just above the legs and claspers.

Fourth moult, June 30th. Body much the same, though stouter, fine yellowish lines. Head rich sienna brown with yellow cheeks and yellow stripes down forehead bifurcating below, and a very fine central line also bifurcating. A broad red wavy line edged with black along the side of the body just above legs and claspers. Claspers large and spreading, each with large white spot. Humps on eleventh and twelfth segments sienna brown. Spots on sixth segment orange yellow bordered with black, and a black spot inside the crescent.

Fifth moult, July 9th. General appearances very similar. Length 2½ inches. Fine lines yellow. Spiracles white edged with black. Red lateral line well marked.

The larva spins a cocoon among leaves and moss, and becomes a rich brown pupa, which becomes nearly black before the moth emerges.

The length is 25 mm. or 1 inch.

The Moth.—The antennæ are slightly serrated in the male; filiform in the female. The male is paler generally than the female, and the markings are less distinct. The ground colour is pale dingy brown sprinkled with dark brown scales. Near the body is a small round dark brown spot. Outside this is a curved whitish line bordered on the inner side by a brown line. About the centre of the forewings is a distinct reniform spot with pale brown centre and dark brown edge. Outside this is a doubly-curved whitish line bordered on the outer side by a dark brown line and an area of brown shading. Between this line and the hind margin is a fine sinuous zigzag line, which is much more distinct in the female than the male. Parallel with the hind margin is a row of small black spots situated on the nervures. The fringe is brown and wavy.

The hind wings are pale drab at the base, while the marginal area is shaded brown in the male and deep blackish brown in the female.

The head, thorax, and body are a pale drab colour.

The underside of all the wings is yellowish drab speckled with dark brown scales, particularly along the nervures and in the marginal area.

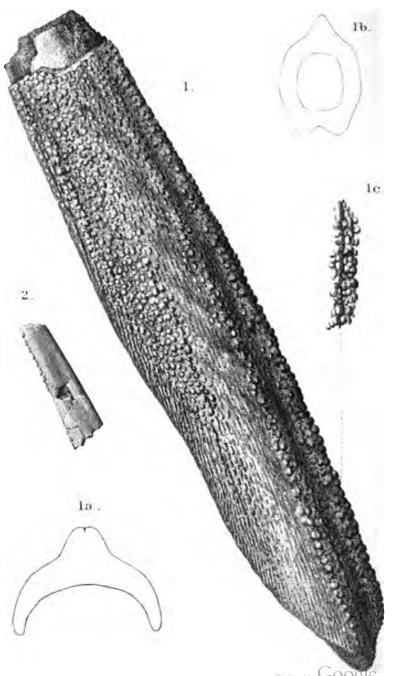
There is an indistinct semi-lunar, blackish brown spot nearly in the centre of each forewing on the underside, and a similar spot nearer the body on the underside of the hindwings.

From the appearances of the egg of O. Lunaris, and also of the larva and imago and their habits, I have no doubt that it is rightly placed near the Catocalidæ.

Mr. Head, of Scarborough, kindly furnished me with ova and pupæ of this species.



Proc.Dorset N.II.& A.F. Club Vol. XXVII, 1906. Pt.A.



CHIMÆROID FIN SPINE

EXPLANATION OF PLATE A.

- Fig. 1. Basal half of dorsal fin-spine of Chimæroid Fish, side view, with outline cross-sections of lower (1a) and upper (1b) ends, and front view of piece of anterior keel (1c), nat. size.—Portland Stone, Portland. [Collection of F. J. Barnes, Esq.]
- Fig. 2. Ischyodus sp., side view of portion of dorsal fin-spine, nat. size.—Portland Stone, Portland. [British Museum, No. P. 6036.]



On a New Chimaeroid Fin-spine from the Fortland Stone.

By A. SMITH WOODWARD, LL.D., F.R.S., of the British Museum.

[PLATE A.]

known from the English Portlandian rocks, but no other part of the skeleton has hitherto been identified. It is, therefore, of interest to record the discovery of the base of a large dorsal fin-spine which may well have belonged to the same species. The teeth have the generic

characters of *Ischyodus*, and are named *I. townsendi.** The new spine, on the other hand, differs in some respects from the typical dorsal fin-spine of *Ischyodus*.†

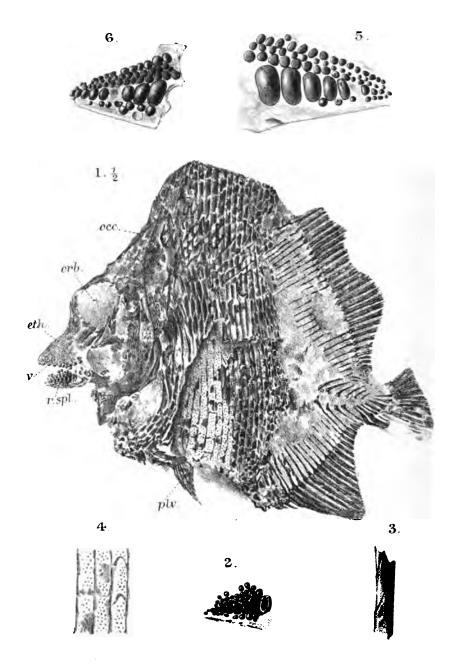
^{*} See especially E. T. Newton, "The Chimæroid Fishes of the British Cretaceous Rocks," (Mem. Geol. Surv., 1878), p. 33, pl. xi.; also Proc. Geol. Assoc., Vol. VII., p. 116, woodc.

[†] For references to the various descriptions see Catal. Foss. Fishes Brit. Mus., Pt. II. (1891), pp. 59-72.

The fossil in question was obtained from the Whitbed of the Portland Stone in a quarry near the parish church, Portland, by Mr. F. J. Barnes, to whom I am indebted for the opportunity of studying the specimen. It is merely the basal part of a bilaterally symmetrical fin-spine below the point where the posterior denticles begin, and is shown of the natural size in Plate A. As indicated by the transverse sections, its side-to-side measurement is greatest at the lower end (Fig. 1a), where it is widely open behind to receive the edge of the fin. Higher up, where its internal cavity is closed behind (Fig. 1b), the spine is somewhat laterally compressed. Its anterior border is constricted into a prominent keel, while its posterior face is sharply excavated by a longitudinal channel. The anterior and lateral faces show that the spine cannot have been deeply inserted in the soft parts of the fish, a narrow lower margin alone having been covered. Its outer surface is ornamented with very coarse rounded tubercles, which are irregular in shape and size, seem to be covered with an extremely thin layer of enamel, and are conspicuous on the anterior keel (Fig. 1c). The arrangement of these tubercles is rather indefinite, but there is a tendency for them to follow the longitudinal ridges which result from the texture of the spine. The whole tissue is of a very porous texture.

The spine thus described must obviously have armed the dorsal fin of a cartilaginous fish; and the fact that it exhibits no long base of insertion proves that it belongs to a Chimæroid rather than to an Elasmobranch. The prominent anterior keel, the deep posterior channel, the open texture, and the tendency towards longitudinal ridges on the lateral face suggest comparisons with the dorsal fin-spine of *Ischyodus* (Fig. 2.) The remarkable bubbly tuberculation, however, is unique. I am inclined to regard the latter peculiar character as the result of overgrowth in an unusually gigantic form; and, since the teeth of *Ischyodus townsendi* from the same geological horizon probably represent an equally large fish, I think it is almost certain that the new spine will eventually prove to belong to this species.

Proc.Dorset N.H.& A.F. Club Vol. XXVII. 1906. PL.B.



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EXPLANATION OF PLATE B.

- Fig. 1. Mesodon barnesi, sp. nov.; left side view of fish, nearly one-half natural size.—Portland Stone; Portland. eth., mesethmoid; occ., occipital crest; orb., orbit; plv., pelvic fins and supports; r. spl., right splenial; v., vomer. [Collection of F. J. Barnes, Esq.]
- Fig. 2. Ditto; right splenial dentition of same specimen.
- Fig. 3. Ditto; inner face of two scales of same specimen.
- Fig. 4. Ditto; impression of outer face of scales of same specimen, showing ornamental tubercles.
- Fig. 5. Mesodon damoni, A. S. Woodw.; left splenial with dentition.—Portland Stone; Portland. [British Museum. no. P. 7,509.]
- Fig. 6. Mesodon granulatus (Münster); right splenial with dentition.—Kimmeridge Clay, Weymouth. [British Museum, no. P. 3,786 d.]

Figs. 2-6 nat. size.



On a Pycnobont Fish of the Genus Mesodon from the Vortland Stone.

By A. SMITH WOODWARD, LL.D., F.R.S., of the British Museum.

[PLATE B.]

LMOST all the remains of fishes from the Portland Stone are so fragmentary that the discovery of a nearly complete specimen is always worthy of note. All the Portlandian Pycnodonts hitherto named, for example, are known only by isolated jaws. It is, therefore, of much interest to be able to study the complete fish to which some of these jaws belonged. Such a specimen has lately been obtained from the "roach" bed by Mr. F. J.

Barnes, who has kindly entrusted it to me for the following description.

The newly-discovered fish is of the deep-bodied, laterally compressed shape so characteristic of Pycnodonts, and is shown of nearly one-half the natural size in Pl. B. Fig. 1. Allowing for probably slight distortion in the caudal region, its total length must have been originally about 0.25m., while its maximum depth would be not more than 0.21m., and the length of the head

with opercular apparatus approximately 0.075m. Its most striking feature is the humped shape of the back.

As seen in direct side-view, the snout is acutely pointed and prominent, while the profile of the head is sinuous and steep, rising to the elevated occipital crest (occ.). Nearly all the external surface of the constituent bones is destroyed, but tubercles on the front edge and on the parietal region indicate that it was originally ornamented with a coarse granulation. Being fractured, the bones exhibit their light and open texture. The large and thin mesethmoid (eth.) as usual, extends upwards to the orbit (orb.); and since all the cheek-plates are removed, remains of the delicate pterygopalatine arcade are exposed, apparently connected in the ordinary Pycnodont manner * with Traces of the relatively large the base of the cranium. Teeth occur along hyomandibular are also seen behind. the oral edge of the vomer (v.), but their arrangement cannot be determined. The greater part of the right splenial (r. spl.) is shown from the oral face, being only obscured behind by a fragment of the corresponding bone of the left side. The arrangement of the splenial dentition is thus clear (Fig. 2). The principal teeth are in a regular close series, all of them broader than long and destitute of any coronal pit or crimping. On the inner side of the series there is only one row of small teeth, which are also closely arranged, nearly round though tending to be longer than broad, and with an occasional trace of an apical pit or crimping. There are three outer rows of closely arranged, nearly round teeth, of which the first and third are about as large as the inner row, while the second is slightly smaller. Few of these teeth exhibit the slight coronal pit and crimping.

The axial skeleton of the trunk is sufficiently well preserved in parts to demonstrate the absence of vertebral centra. The elongated rather stout neural spines are seen in undisturbed

^{*} A. S. Woodward, "On the genus *Anomæodus*, with Remarks on the Structure of the Pycnodont Skull," Geol. Mag. [3], Vol. x. (1893), p. 487, pl. xvii.

series in the scaly part of the trunk, but they do not appear to reach the humped dorsal margin. Traces of the ribs show that they were also long and stout. The middle part of the vertebral column is destroyed, but the terminal half of the caudal region is well preserved. In the four segments in advance of the tail fin the neural are about as large as the hæmal arches; but within the fin there is the usual expansion and preponderance of the hæmals. The condition of the vertebral column suggests that there has been no distortion of the abdominal region, but probably a little in the anterior half of the caudal region.

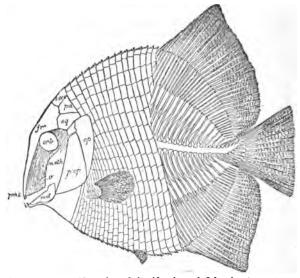
The pectoral fins are not shown, but remains of the very small pelvic pair (plv.) are preserved remarkably far forwards. There are indications that the pelvic fin-supports are a pair of long and narrow laminæ, while the fin-rays must have been few, broad, and closely articulated. The rays of the median fins are also broad and closely articulated to a point not far from the base. The dorsal fin seems to have 30 supports, but its shape is not seen. The anal fin, with 19 or 20 supports, rapidly rises to a point anteriorly, its maximum depth equalling about three-quarters of its basal extent. The caudal fin is obscure, displaying only the short crowded rays at its origin below.

The scales are confined to the trunk in advance of the median fins, and, so far as preserved, they are in regular undisturbed series. Some are seen from within, others in impression of the outer face. Their inner face (Pl. B, Fig. 3), bears a low and broad vertical ridge, ending in a large peg-and-socket articulation. Their outer face (Pl. B, Fig. 4), is sparsely ornamented with large rounded tubercles, which are hollow. The scales of the middle portion of the flank are not less than twice as deep as broad, while those near the dorsal and ventral borders are more nearly equilateral. The dorsal and ventral ridge-scales are ornamented with stout enamelled prickles.

The Portlandian Pycnodont now described is clearly referable to the genus *Mesodon*. The characters of the splenial dentition, the squamation, and the short tail-pedicle leave no doubt as to this determination. The only difficulty is in deciding upon the

specific relationship of so imperfect a fossil, since the most nearly allied forms are known merely by fragmentary specimens.*

The fish is not a young individual of *Mesodon damoni*, which is already represented by jaws from the Portland Stone of Portland, † because in the immature state of this species (see the narrow end of the dentition shown in Pl. B, Fig. 5), the splenial teeth are less crowded than in the new fossil, while the principal teeth are rounder. Nor can the specimen be referred to the typical *Mesodon macropterus* (see Text-fig. below), or *M. daviesi*,‡ which are known by nearly complete fishes from the Bavarian lithographic stone and the English Purbeck Beds respectively, because in these species there is no sudden elevation



Mesodon macropterus (Agassiz); left side view of fish, about one-half natural size.—Lithographic Stone; Bavaria. fr., frontal; m.eth., mesethmoid; md., mandible; qp., operculum; orb., orbit; p.op., preoperculum; pa., parietal; pmx., premaxilla; s.occ., supraoccipital; sq., squamosal; v. vomer.

^{*} For an account of all known species of *Mesodon* see Catal. Foss. Fishes Brit. Mus., Pt. III. (1895), pp. 199-215.

⁺ A. S. Woodward, "On a New Species of Pycnodont Fish (*Mesodon damoni*) from the Portland Oolite," Geol. Mag. [3], Vol. VII. (1890), p. 158.

[‡] A. S. Woodward, "On some New Fishes from the English Wealden and Purbeck Beds," Proc. Zool. Soc., 1890, p. 351, pl. xxviii., fig. 5.

of the back between the head and the dorsal fin, and the rays are more numerous in the dorsal and anal fins. The only comparable hump-backed forms hitherto discovered are M. gibbosus,* from the lithographic stone of Bavaria and France, and M. granulatus, from the Corallian and Kimmeridgian of Western Europe.† The first of these (which I once supposed to be founded on a distorted specimen) differs from the Portland fish in having the elevation of the back pointed, not rounded; but the second, so far as known from an imperfect skeleton found in the Lower Kimmeridgian of Hanover, agrees very well with the form now described in the round humped shape of the back and in the nature of the ornamentation, including prickles on the ventral scales. Moreover, the splenial dentition of M. granulatus, as may be observed in an example from the Kimmeridge Clay of Weymouth (Pl. B, Fig. 6), is remarkably similar to that of the fish now described (Pl. B, Fig. 2). Unfortunately, however, the median fins of M. granulatus have not yet been discovered, and its tail is very imperfectly known, so that no exact comparisons are possible. I, therefore, propose to regard the Portland fossil now described as representing a new species, M. barnesi, which may be defined as follows:-

Trunk raised into a rounded eminence between the occiput and the dorsal fin, and its maximum depth nearly equalling its total length to the origin of the caudal fin. External bones and scales coarsely tuberculated, the dorsal and ventral ridge-scales with enamelled prickles. Teeth smooth, a few of those of the lateral series having a faint apical pit with traces of crimping on the border; splenial teeth closely arranged, those of the principal series broader than long, flanked within by one row of small round teeth and externally by three series, of which the median is the smallest, and the outer about equal in size to the inner series. Dorsal fin with about 30, anal fin with about 20 rays.

^{*}A. Wagner, Abh. k. bay. Akad. Wiss., math.-phys. Cl., Vol. VI. (1851), p. 52, pl. iii., fig. 2.

⁺K. Fricke, "Die fossilen Fische aus den oberen Juraschichten von Hannover," Palæontographica, Vol. XXII. (1875), p. 359, pl. xviii., pl. xix., figs. 1-5.

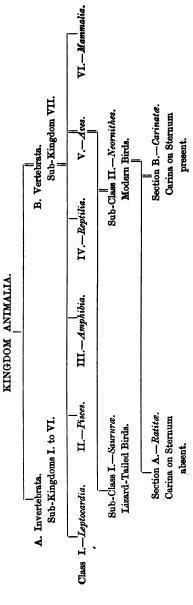


PLATE I.



The Ringed Flover (Aegialitis hiaticola).

(Being the Mansel-Pleydell Prize Monograph for 1906.)

By W. PARKINSON CURTIS.

BOOKS REFERRED TO.

Author.	Date.	Title.	Publisher.
R. Bowdler Sharpe	1896	A Handbook of the Birds of Great Britain	Edward Lloyd, Ltd.
Charles Dixon	1902	Birds' Nests	Grant Richards.
W. R. Ogilvie-Grant	1905	Guide to the Bird Gallery of the South Kensington	
		Museum	Trustees of the British Museum.
Henry Seebohm	1886	History of British Birds	J. C. Nimmo.
J. C. Mansel-Pleydell	1895	Birds of Dorset	R. H. Porter.
H. E. Dresser	1870	Birds of Europe	Taylor and Francis.
R. Bowdler Sharpe	1896	Catalogue of Birds, Vol.	
_		XXIV	Trustees of the

PRELIMINARY OBSERVATIONS.

Plover (Ægialitis hiaticola), and we have thought it desirable by way of preface to give the various main divisions to which it belongs, with the several leading characteristics, entitling it to its present position in the orthodox system of classification.

The table (Plate I.) given herewith, shows the main divisions of the Animal Kingdom, and is carried as far as

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			OKUEK	OKDER AII.—CHARADKIIFORMES	KMES.			
	6	ణ	4.	5.	6.		&	
_ , madida.	Chionidida.	Attagidæ.	Charadriide.	Cursoride.	Glareoliste.	Parride.	Oedicnemida.	
			Nostrils schizorhi-	Nostrils schizorhi- Nostrils sometimes			Holorhinal	Ħ
			nal.	holorhinal, some-			nostrils.	
				times schizorhinal.				
			Opistnocoeius					
			dorsal vertebræ.	•				
			Basipterygoid	•				
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			present.	Widdle clear mooti . Middle clear wooti	Widdle close monti-		absent.	
				nated.	nated. Wings			
					when closed reach			
	Wings spurred.		Wings sometimes		beyond tail,	Wings spurred.		
	•		spurred.	•		•		
			•		•	Toes and claws		
	Rase of Bill					extremely long.	•	
	THE TO DOTE			-				
	covered with a		•					
Dig	thorny sheath.		Spinal feather tract					
gitize			forked on upper					
d by			back.					
C		•	Occipital fontanel-					
Habitata-			les present.					
S. Arabia,	S. America and S. America.	S. America.				Tropical		
India,	S. Atlantic.					countries.		
E. Africa.				:				
				PLATE II.				

the Sub-Class II., B., viz., the *Carinatae*, from which sub-class the Ringed Plover is derived.

The living representatives of the Class Aves to which our subject belongs are readily distinguished from the members of any of the other classes, by the fact that they are bipedal animals clothed with feathers, and having mandibles destitute of teeth, and forming a bill. In addition to these characteristics, the whole of the class possess wings more or less perfectly developed. The Class Aves is divided into two principal sections. Section A, the Ratitæ, contains birds entirely destitute of a keel on the sternum, and consequently flightless. Section B, the Carinatæ, contains birds having a keel on the sternum, and able to fly. The carina or keel forms a point whence the muscles driving the wings may derive resistance.

The Carinata are divided at present into thirty orders, some of which are tentative only. The Ringed Plover belongs to the twelfth of these orders, viz., the Charadriiformes, which includes all the plover-like birds (Plate II.). The principal characters of this order are:—

- (i.) The nostrils are sometimes holorhinal and sometimes schizorhinal.
 - (ii.) The feet are never fully webbed.
 - (iii.) The palate is always schizognathous.

The Charadriiformes are divided into nine principal families.

- I .- The Dromadidæ, or Crab Plovers.
- II.—The Chionididæ, or Sheathbills.
- III.—The Attagidæ, or Seedsnipes.
- IV.—The Charadriidæ, or True Plovers.
 - V.—The Cursoridæ, or Coursers.
- VI.—The Glareolidæ, or Pratincoles.
- VII.—The Parridæ, or Jacanas.
- VIII.—The Œdicnemidæ, or Stone Plovers.
 - IX.-The Otididæ, or Bustards.

Of these families, Nos. IV., V., VI., VIII., and IX., have occurred in Dorset, and it is to Family IV. that the subject of these remarks belongs. We have, as far as the characters are

FAMILY CHARADRIIDÆ.

8. Totanina.	Nostrils produced nearly to end of the bill.		Tarsus transversely Planta tarsi Tarsus transversely plated with scales serrated, plated with scales before & behind, before & behind.	Toes lobed for Web connecting swimming. outer and middle toes. Small web connecting inner and middle toes.
7. Phalaropinæ.		Bill flattened and slightly widened at top.	Planta tarsi serrated.	Toes lobed for swimming.
6. Scolopacina.	Nostrils produced nearly to end of the bill,	Bill long and soft.	Tarsus transversely plated with scales before & behind.	No web to toes.
5. Himantopodinæ.	Dertral swelling Dertral swelling present.	Bill not com- Bill long, straight, Bill long and soft, pressed. or upturned.		Toes united by a Noweb to toes, web.
4. Charadriina.	Dertral swelling mresent.	Bill not compressed.	Tarsus reticulated before & behind with hexagonal plates.	Toes we Toes Toes Toes
3. Lobicanellina. Wattled Plovers Tabsent from	britan.			
2. Haenatopinæ.	Dertral swelling	Bill much compressed; very narrow. Angle of lower mandible near base of bill.	Tarsus reticulated before & behind with hexagonal plates.	
1. Arenariina.	Nostrils only half the length of the cul- men. Dertral swelling ab- sent.		Tarsus lower half transversely plated, remainder and back reticulated.	• red by Google

PLATE III.



(a.) Wings of ÆGIALITIS HIATICOLA.



(b.) WINGS OF VANELLUS CRISTATUS.



ascertainable, tabulated the characters of the families found in the Charadriiformes. It is regretted that the table is so imperfect, but the creators of these families have rarely worked the characters right through with a due regard to the characters upon which the other families in the same order have been founded. This often leaves the student in great doubt about his classification of a bird (Plate II.). The Family Charadriida is divided into eight Sub-Families, and we have tabulated these so far as the materials at our disposal would permit of our doing so. (Plate III.) The sub-family Himantopodina will probably be still further sub-divided in the near future. The third sub-family, the Lobivanellina, is absent from Great Britain, and we have accordingly ignored it.

It is in the Sub-Family IV., Charadriinæ, the typical sub-family of the Charadriidæ, that Ægialitis hiaticola finds a resting place. The Charadriinæ, although No. IV. in the British Museum Catalogue of Birds, has been placed at the head of the family by Mr. Howard Saunders in his manual, and this position has been approved by Mr. R. Bowdler-Sharpe. It will be observed that the typical characteristics of this sub-family are the presence of a dertral swelling at the top of the bill and a tarsus reticulated before and behind the hexagonal plates. Of the genera at present recognised in the sub-family Charadriinæ eight have occurred in Great Britain, viz.:—

(i.) Squatarola, (ii.) Charadrius, (iii.) Octhodromus, (iv.) Eudromius, (v.) Oxyechus, (vi.) Ægialitis, (vii.) Vanellus, (viii.) Chaetusia.

These genera are sharply divided by the shape of the wings into two groups, which for convenience we will call the sharp-winged group (A) and the blunt-winged group (B). Genera I., II., III., IV., V., and VI. belong to Group A, and VII. and VIII. to Group B. Group A have a rapid twisting flight, and are able to skid for a great distance with but a few blows of the wings to gain impetus. Group B have a heavy flapping flight, which is sufficiently accounted for by the short and ample character of the wings. The illustrations (Plate IV., a, b), show the wings of

SUB-FAMILY CHARADRINÆ. BRITISH GENERA.

Group B.—The Blury-winged Ployers. Genera Vanellus and Chaetusia.	Squatarola. (1) Hind toe present. (2) Breast and abdomen (2) No black abdomen (2) No black in summer. (3) Brok in summer black in summer only.	(3) Spangled plumage on (3) Spangled plumage (3) Upper surface plain. (3) Upper surface plain. (3) Upper surface plain. upper part. (4) Bill stout, culmen = (4) Culmen aborter than (4) Culmen aborter than middle toe and middle toe and middle toe and claw. (5) Tibia feathered to (5) Tibia bare for some (6) Tibia bare for some joint. (6) Wedre-shared tail. (6) Tail somewhat aborter than (7) Trill somewhat aborter than (8) Tail somewhat aborter than (9) Tail somewhat aborter than (10) Tail somewhat abort
roup B.—The	Oxyechus. d toe absent. black abdomen summer.	per surface plain. men ahorter than iddle toe and aw. is bare for some stance.
9	(1) Him n (2) No in	(3) Upp
	Endromius. (1) Hind toe absent. (2) No black abdomer in summer.	3) Upper surface plain 4) Culmen shorter that middle toe an claw. 5) Tibia feathered to nearly tibio-tarsa joint.
	Octhodronus. (1) Hind toe absent. ((2) No black abdomen (in summer.	(3) Upper surface plain. ((4) Bill stout, culmen = (middle toe and claw.
GE SHARP-WINGED PLOYERS. Inner secondaries, long and pointed.	Charadrius. (1) Hind toe absent. (2) Breast and abdomen black in summer	(3) Spangled plumage on upper part.
Group A.—The Sharp-winged Ployess. Inner secondaries, long and	Squatarola. (1) Hind toe present. (2) Breast and abdomen black in summer only.	(3) Spangied plumage on upper part.

PLATE V.

nected with middle

toe at base.

and square, not it length of wing.
(7) Outer toe not con-

more than § length of wing.

Ægialitis hiaticola and Vanellus cristatus typical examples of the different types.

The British genera of the sharp-winged group are distinguished in accordance with the table given in Plate V., and this is the present last word of the authorities on classification. (Plate V.)

With all deference and humility at differing from great authority, the opinion we hold is that the present genera are by no means satisfactory. Mr. Henry Seeholm, in his work on British Birds, published in 1886, did not divide the Family Charadriidæ into sub-families, and he took as his type genus Charadrius. In this genus he included Arenaria interpres (now relegated to the Sub-Family Arenariinæ), Ægialitis dubius (minor), Ægialitis hiaticola (hiaticula and hiaticula major), Ægialitis alexandrina (cantianus), Eudromius morinellus, Octhodromus asiaticus, Charadrius pluvialis, Charadrius dominicus (fulvus), Squatarola helvetica, and Oxyechus vociferans. The Turnstone, Seebohm was prepared to relegate to a Sub-Genus Morinella, as the bill was aberrant. This bird has now (and, as we believe, rightly) been placed in the Sub-Family Arenariinæ, so that we may at once dismiss it from further consideration.

For the genus Charadriius he gave the characters dertral swelling at the tip of the bill and pointed wings, but observed that the hind toe was present in some species and not in others, that in some species the tarsus was reticulated and in others scutellated. Now, it will be observed, that the species above named, all fall into our group A with pointed wings. Squatarola helvetica is decidedly entitled to the distinction of a separate genus, since it alone of the six remaining British genera has the hind toe present; Ægialitis and Charadrius however, are as at present defined, separated mainly upon the ground that Charadrius dons its black breast and frontal band during the breeding season only, whilst Ægialitis retains it all the year round. This is to our mind a very unsatisfactory character upon which to separate Ægialilis from Charadrius.

Octhodromus again is in part founded upon the summer band of cinnamon across the chest and the bill which is stouter than in Egialitis, this is again unsatisfactory since the bill is no stouter than that of C. Pluvalis. If the separation of Charadrius from Egialitis, solely on the ground of the summer plumage, is not ultimately held good and Egialitis falls, Octhodromus must fall too. Eudromius again is separated largely by plumage, but its bill is shorter than the bill of Oxyechus, and it is a heavier built bird than Egialitis; its tarsi are shorter than that genus, and the bare part of the tibia is less extended. Oxyechus is defined as the same characters as Egialitis, but the tail is wedge-shaped and longer than half the length of the wing, whilst in Egialitis the tail is square and shorter than the dimension referred to. We should welcome a return to the following simplified classification of our Group A.:—

- (1). Hind toe present Squatarola. Hind toe absent 2.
- (2). Tail wedge-shaped .. . Oxyechus.

 Tail not wedge-shaped .. Charadrius.

The last genus would then include A. dubius, A. hiaticola, A. alexandrina, E. morinellus, O. asiaticus, C. pluvialis, and C. dominicus, which to our mind is a much more useful and much more natural classification. However, as we said before, we put forward these opinions with the greatest diffidence, as Mr. R. Bowdler-Sharpe in his catalogue of the Birds in the British Museum, Vol. XXIV. (10 May, 1896), keeps these genera distinct. The genus, Ægialitis, then, as at present constituted, is distinguished from Squatarola by the absence of the hind toe, from Charadrius by its constant chest band, from Octhodromus by its slighter and shorter bill, from Oxyechus by its square tail, and from Eudromius by its slighter build and less fully feathered tibia.

The genus, Ægialitis, in Britain, contains three species, viz., hiaticola (the type of the genus), alexandrina and dubia. The species are distinguished as follows:—

Black band on fore neck complete .. alexandrina.

2. Shaft to first primary only white.

Bill yellow at base of lower mandible only dubia. Shaft all primaries marked more or less with white.

Both mandibles orange-yellow at base .. hiaticola.

Ægialitis alexandrina, both the bird and egg, is readily distinguishable even at a distance. We have had a fairly close acquaintance with the bird, having seen it in its native haunts in all stages from the egg upward. The two latter species, A. dubia and A. hiaticola are not so readily distinguishable, but, whereas A. hiaticola is a lover of the seashore, A. dubia frequents rivers and inland waters, rarely going to the sea.

Henry Seebohm has divided Ægialitis hiaticola into two subspecies, to which he respectively gave the names C. hiaticula and C. hiaticula major, but we will reserve the discussion of this to a later period in our paper. We have now arrived at the following classification of our subject:—

Kingdom, Animalia.

Sub-Kingdom, Vertebrata.

Class, Aves.

Sub-Class, Carinata.

Order, Charadriiformes.

Family, Charadriidæ.

Sub-Family Charadriinæ.

Genus, Ægialitis.

Species, hiaticola.

This closes our preliminary observations, and we will now proceed to deal with our subject specifically.

We shall divide our subject into the following headings, but, as this arrangement is more arbitrary than natural, there will be some overlapping:—

- (i.) Synonomy.
- (ii.) Familiar names.
- (iii.) Plumages—(a) male, (b) female, (c) immature, (d) nestling.
- (iv.) Range—(a) in the world, (b) in Great Britain, (c) in Dorset.

- (v.) Food.
- (vi.) Nest. (vi. a) Breeding season habits.
- (vii.) Eggs.
- (viii.) General habits.
 - (ix.) Enemies.
 - (x.) General observations.

(i.) Synonomy.

* Charadrius hiaticula, Linn., Syst. Nat. i., p. 253 (1776).

Macgill, Brit. B., iv., p. 116 (1850).

Seebohm Brit. B., iii., p. 20 (1885).

Charadrius hiaticula major, Seebohm Brit., B., iii., p. 20 (1885).

Charadrius aegypticus, Linn Syst. Nat., i., p. 254 (1766).

Charadrius hiaticola, Temminck's Man. d'Orn., p. 325 (1815).

Charadrius torquatus (Briss), Leach Cat., Mamm., &c., Brit. Mus., p. 28 (1816, nec Linn.).

Charadrius major, Tristram fide Gray Handb., B. ii., p. 15 (1870).

Charadrius homeyeri, Brehm, Naummaniia 1855, p. 285.

* Aegialitis hiaticula, Dresser, B. Eur. VII., p. 467, p. 525 (1876), B. O. W. List of Brit. Birds, p. 159 (1883), Saunders' ed., Yarrell's Brit. Birds, III., p. 257 (1883). id., Man, Brit. B., p. 523 (1889). Lilford Col. Fig. Brit., B., p. LXX. (1891). Boie, Isis (1822), p. 558.

Aegialitis hiaticola, Sharpe, Cat. B. Brit. Museum, XXIV., p. 256. ibid, Handbook Brit. Birds, Vol. III., p. 158 (1896).

Aegialitis auritus, Hengl. Syst. Uebers, p. 56 (1886).

Aegialitis septentrionalis, Brehum, Vog. Deutsch, p. 548 (1831).

Aegialitis hiaticuloides, Heagl. Syst. Uebers, p. 56 (1856).

Aegialitis intermedius (nec Menebr.) Gurney, Ibis (1868), p. 255.

Sharpe's Ed. Layard's B. of S. Af., p. 661.

Pluvialis torquata minor, Briss. Orn, V., p. 63., Pl. v., Fig. 2 (1760). Pluvialis torquata, ibid, p. 60, Pl. v., Fig. 1 (1760).

Pluvialis hiaticula, Droste Vog. Borkum, p. 150 (1869).

- * Hiaticula annulata, Gray's List Gen. B., p. 65 (1840).
- * Hiaticula hiaticula, Linn. Licht. Nomenel. Ava, p. 94 (1854).
- * Hiaticula arabs, ibid.

Hiaticula torquata, Gray's List Grall Brit. Mus., p. 68 (1844).

NOTE.—The names marked above with an asterisk Henry Seebohm regarded as applicable only to the smaller form of the species.

(ii.) FAMILIAR NAMES.

Mr. Bowdler Sharpe, in his handbook, gives the English name of this bird as the "Ringed Sandplover." Mr. Henry Seebohm, in his work on British Birds, gives the name as the "Ringed Plover," and it is by this name the bird is usually called. Mr. Sharpe (ibid) also gives the name "Sandlark," and states that at Sidlesham and Pagham it is known as the "wide-awake." At Rye and Dungeness I have always heard it referred to as the "Big Ringed Plover." At Poole it is called the "Dotterel" or "Ring Dotterel." This latter is the name used by Mr. E. T. Booth, who amassed that marvellous collection of birds at the Dyke Road Museum, Brighton.

It was described as the "Sealark" by Albin in 1738. It is also called at Poole the "Sea Swallow" and the "Rob," the latter name being vaguely given to all small waders which are not "Tinkers." The name "Tinker" is practically confined to the "Peep-o'-day" birds and Sandpipers proper.

(iii.) Plumages.

A series of sharply-marked contrasts which, when the bird is in the hand, gives one the impression that it is a conspicuous bird. This, however, is by no means the case. The bird's own shadow kills the white on the lower parts to such an extent that the under parts appear almost the same colour at a distance as

the back. The shadow of the head kills the white throat, so that it also appears to be grey. The bird, either standing on mud, shingle, or sand, or sitting upon its nest, is really so admirably coloured that even at a short distance its protective resemblance to its surroundings conceals it in a manner which must be seen to be appreciated.

(a) The Adult Male.—The general colour above is a pale sandy fawn colour; the wing coverts are also of the same shade, the greater wing coverts being tipped with white. The quill feathers of the wings are brown. The primaries have dark brown outer webs and tips with more or less white towards the base of the inner webs. The shafts are white, the white increasing in extent on the inner primaries. There are distinct white patches on the outer web. The inner secondaries are pure white; the innermost long secondaries are fawn-coloured, like the back. The tail feathers are pale brown, tipped with white, with a sub-terminal black bar, the white increasing towards the outer feathers. The penultimate tail feathers are white, with a pale brown inner web and a narrow black sub-terminal bar; the outermost tail feathers are pure white.

The crown of the head is pale brown; next to this and extending from eye to eye right across the crown of the head is a black band. Below this in front is a white band, and below this again between it and the bill is a narrow black band. This band reaches to the eye, and running below the eye, widens out and extends to the fawn patch on the crown and nape of the neck. The cheeks, neck, and throat are white, the white extending to form a collar round the neck.

The chest has a wide black band across it, which narrows towards the back and almost meets. The under surface of the body and the under sides of the wings are pure white, with the exception of the lower primary coverts and quill lining which are tinged with grey. The bill is very deep brown, almost black at the end, the base and remainder being orange. The feet and tarsi are orange, and the claws black. The iris of the eye is deep brown. (Plate VI.)

ÆGIALITIS HIATICOLA (SUMMER).
PLATE VI.



ÆGIALITIS HIATICOLA (IMMATURE).

The general dimensions are length 7 inches, culmen 0.7 inches, wings 5.1 inches, tail 2.3 inches, tarsus 1.05 inches.

- (b) Adult Female.—Mr. Bowdler Sharpe savs (Vol. III., p, 159). Not distinguishable from the male. Total length 7.7 inches, culmen 6.5 inches, wings 5.1 inches, tail 2.25 inches, tarsus 1 inch. We are not prepared to say that we can correctly sex any bird put in our hands, but we demur to the above statement. is possible at any rate to distinguish the female from the male during the breeding season as her colour is less pronounced, and at a short distance she is decidedly an ashier grey-brown than the male. The fawn coloured back of the male is of a warmer tint. Mr. Henry Seebohm states "The female is not quite so brilliant in colour as the male. After the autumn moult very little change is perceptible, except that the male is scarcely more brilliant in colour than the female." This statement entirely coincides with (Confer Dresser, Vol. III., the result of our observations. p. 498.)
- (c) Immature.—The immature birds are paler than the adults, and have the feathers on the upper surface margined with ashy buff. The ear coverts are brownish black. No black band is present on the forepart of the crown. The band of the fore neck is brown, tinged with buff in the middle, the sides of the collar blackish. The white forehead and eyebrow are tinged with brown. (Plate VII.)
- (d) Nestling in Down.—The upper parts sandy brown mottled with stone colour and dark brown. There is a bluish grey stripe on the back and head. The lower parts being much paler, almost white. The eye stripe is present, and is a darker brown than the remainder of the bird; it commences at the bill and extends right round the nape, where it widens out. The colouring renders the nestling practically invisible amongst the shingle and debris of a beach. The bill is brown and the feet and legs are pink.

NOTE.—The Ringed Plover differs much in size. This is discussed at page 212; but the two forms will be mentioned as the larger form and the smaller form before the matter is discussed.

(iv.) RANGE.

- (a) Outside Great Britain.—The larger form occurs over Western Europe, the smaller form over Europe generally, exclusive of the Western part and Britain. Its northward range extends to Jan Mayen and beyond Spitzbergen and to the Cumberland Gulf in N. America; possibly also Behring Strait; but Henry Seebohm suggested that the bird obtained by the "Vega" expedition was in reality Charadrius placidus. Eastward it ranges as far as Lake Baikal, but it rarely breeds in Turkestan. Southward, on the winter migration, it spreads over the whole of Africa, and even reaching the Cape of Good Hope; stragglers also reach N.W. India. The Australian record is undoubtedly erroneous. (Cat. B.M., Vol. XXIV., p. 261.)
- (b) In Great Britain.—On all the coasts, and breeds everywhere on the beaches. It is also found on the shores of inland lakes, and during migration has been known to occur on commons and riverbanks very far inland. Sir William Jardine records it as nesting on rabbits' warrens a considerable distance from the sea. It also reaches the Orkneys, Shetlands, Hebrides, and the Channel Islands.
- (c) In the County of Dorset.—It breeds plentifully in Poole Harbour, Studland Bay, Lodmoor (per L. R. N. Thompson), and on the Chesil Beach, these being the most suitable places on the coast for it. Personally, we have not met with it either at Swanage, Lulworth, or Warbarrow, although some parts of the beaches at these places seem to afford likely breeding haunts.

(v.) Food.

This consists of small molluscs, crustacea, shrimps, sand-hoppers, and the like, also sea worms of various kinds. Dresser gives Amphidota, Coleoptera, and Diptera in addition to the above. The bird will, to our own knowledge, run eagerly to catch the numerous flies to be found amongst the decaying seaweed on the shore.

NEST ON SHINGLE, PATCHIN'S POINT, POOLE HARBOUR.

PLATE VIII.



Nest on a Pithank, Doulton's Clay Works, Poole Harbour.

PLATE IX.

(vi.) THE NEST.

(Plates VIII. to XIV.)

Charles Dixon, in his work on "Birds' Nests," published in 1902, says: "The Ring Plovers, for example, can by no stretch of imagination be regarded as nest builders. They deposit their eggs on the bare sands and shingles, often with not even a semblance of a hollow to contain them," p. 43. Mr. R. Bowdler Sharpe says: "Nest, none as a rule, being merely a hollow scooped in the sand, though sometimes the bird takes advantage of a natural depression." Against these libels on a charming and loveable little bird we do most emphatically protest. We probably have seen quite as many ring plovers' nests as these two gentlemen, and the above statements bear little or no likeness to the facts ascertained through our own observations. Seebohm, generally so accurate in his observations, says: "The Ring Plovers make little or no nest." The question as to how much nest a Ring Plover will or will not make is determined by the personal temperament of the bird, coupled with a consideration of the situation in which it has decided to nest. According to our experience, the pairs nesting at Studland on the fine soft sand merely scrape a little hollow or take advantage of a natural depression, and, after ornamenting it or partially lining it with broken shells, bits of marram grass, or dead seaweed, according to the taste of the bird, deposit their eggs in this. The ornamentation, if it renders the nest conspicuous, is removed as soon as an egg is laid. On the beaches and islands of Poole Harbour the process is a little more complicated. First there is much inspection of the beach, and many little depressions are scraped out by the birds, to be forsaken, apparently quite whimsically, for another site. The little female waders, like the female of a higher vertebrate inhabiting the Palæarctic region, seem to be exceedingly difficult to please in the matter of a matrimonial The nett result of much energy expended in making "scrapes" is that the final scrape is made probably within a few vards of where the nest was made last year. Having finished a neat circular depression to their mutual satisfaction, the next thing the birds consider is a lining. This is almost invariably composed of very small stones, although I have known seaweed, dead grass, and bits of shell used. Colonel Fielden records finding a nest lined with the leaves and stems of Atriplex littoralis. The small stones generally used are very neatly arranged in the nest, and fitted in to form a miniature tesselated pavement, which the birds pack with much care and exactitude. From our observations we believe that the older the bird the greater the care and neatness with which the lining is fitted into the nest. When the lining is completed the next thing is the ornamentation of the home. The material chosen is entirely governed by the taste of the bird; sometimes the entire nest will be filled with the chelæ of the shore crab, bleached silvery white with exposure to the weather. At another time the nest will be ornamented with very small cockle shells entire, at another with the edges of the valves only. Sometimes again the hinges alone are chosen, and occasionally almost every conceivable kind of shore débris will be used. As soon, however, as an egg is laid, the ornaments which render the home conspicuous are carefully removed, and the egg is left to the protection of its practical invisibility. Its colour is so like that of the material on which it is deposited that it often escapes the practised eye. We regret to say that the insane persecution to which this little bird has been subjected in Poole Harbour and the ruthless destruction of its eggs has caused it to our knowledge to choose many unusual sites for its nests. Amongst them we may mention that it has taken to nesting on the pit-banks at nearly all the clayworks near the harbour, where amongst the desolation of mound after mound of rubble it is far safer than on the comparatively narrow strips of shingle beach around the harbour. It has also nested in the deep heather, and in the sedgebeds near the harbour. On one occasion we found a nest in a depression whence turf had been removed, and for some years now the bird has availed itself of every ledge on the low cliffs of the various islands and headlands in and around Poole Harbour.



NEST ON A CLIFF LEDGE, ROUND ISLAND, POOLE HARROUR.

PLATE X.



NEST AND EGGS ON SHINGLE, GREEN ISLAND, POOLE HARHOUR.

PLATE XI.

A very large number of nests are destroyed by the exceptionally high spring tides that occur quarterly. Of these tides the one that comes about breeding time we generally get about the end of March or the first week or so in April. The tide then makes several feet higher than usual, and if there should happen to be an easterly gale at the same time, the destruction is even greater. The pairs that have nested early on the beaches are almost certain (as happened in 1905) to have their eggs swept away, and to have to commence their nesting again. The birds will lay several complete clutches if their nests are taken or destroyed, but it is almost impossible to say how many will be laid, since the bird will sometimes sit a portion of a clutch if one or two eggs are removed.

(vi. a.) Breeding Season Habits.

Towards the middle of March the Ringed Plovers pair. Where the breeding takes place at a distance from the winter resort the Ring Plover departs for the breeding place in little companies, but where the breeding takes place in the area in which the flock has spent the winter the pairs segregate themselves from the flock and repair to the breeding ground. We may say here that in our opinion the Ring Plovers pair for life, even though they go about in flocks during the winter. Our reasons for this belief are as follows:—It is a well-known fact that every female bird lays the same type of egg each successive year with slight variation within well-defined limits. This is quite apart from the question of types of colouration. which will be referred to under the heading of eggs. The particular egg bears the mark of the individuality of the female laying that egg. Now each successive clutch of eggs will bear a greater likeness to the preceding clutches of eggs laid by the bird than the successive children borne by a human mother. This will be readily understood when it is considered that the uterine mother supplies the whole external fabric and colouration of the egg, whilst in human beings the external characters of the male parent will be transmitted to the young in a definite proportion. Accordingly when we find—as we have found for six successive years—a nest of Ring Plover's eggs laid within a few yards (at most 100 yards) of the spot where we found a clutch of eggs in the preceding year, and that these eggs bear the same individuality in form and colouration that the eggs we found last year bore, we are correct in assuming that the eggs were laid by the same parent bird. Further, when this has happened with regard to three pairs of birds observed for five or six years, we can safely assume that they are the same pairs segregated from the winter flocks, and back at their old breeding haunts. Hence, we are firmly of opinion that the Ringed Plover does as a rule pair for life, and that if a mishap has befallen one of the pair, a new partner is brought to share the old home with the surviving partner.

The pairing for life, however, does not seem to affect the progress of the courting, which is started afresh every spring. The male bird runs on the sand before the female bird, bows and scrapes before her, twitters to her little endearing notes, caresses her, and raises his head to the full extent of his neck and then pokes it forward, every once now and again raising his wings over his back. This exhibition generally ends in a mad frolic at full tilt through the air or along the beach, the male following the female and whistling a warbling note tooēeoo, ooeeoo, ooeeoo, ooeeoo, again and again. During the sitting the male bird is in constant attendance on the female, rarely leaving her, but we do not think that the male bird takes any actual share in the incubation, since when the female is off the nest feeding the eggs are left unguarded. As incubation advances the eggs get little patches of mud on the upper part, which gradually grow, as the dirt brought by the little bird on her feathers after her daily excursion for feeding purposes and exercise has been deposited on the top. In fact a look at the eggs will generally enable you to judge how far incubation has progressed. The eggs when laid on places like the shingle beaches at Rye or the Sandbanks at Studland do not





NEST AND EGGS AMONGST SHINGLE AND SEAWEED, FURZE ISLAND, POOLE HARBOUR.

PLATE XII.



NEST AND EGGS WITH COCKLE-SHELLS, PATCHIN'S POINT, POOLE HARBOUR.

PLATE XIII.

get so dirty, as the birds find their food on the cleaner sand and shingle and not on the mud flats.

On approaching the sitting bird she slips quietly off the nest, and bending low dodges away over the shingle looking like some moving stone. When she has retired to what she deems a safe distance, she stands head on one side and surveys you with an air of interested curiosity, as if speculating what that strange animal will do next.

She and her mate will the while be calling to each other their alarm note in a low tooēē ūēe. When satisfied that danger is over, and you have moved far enough away to be unable to see her, she runs back to the nest, stopping every now and again to survey the district thoroughly for anything that might lead to the discovery of her precious eggs, till finally she cuddles the eggs under her with her legs. She sits down again, her head drawn back so that her bill almost rests on her chest. When disturbed and agitated the little birds have the curious habit of picking up small stones in their bills and carrying them about. (Confer Mr. R. Kearton's Wild Nature's Ways.) They will also pretend to feed with a view of putting you off enquiry as to the cause of their presence.

The young when hatched leave the nest within a few hours, and are most diligently guarded and attended by their parents. The small waders are models of parental solicitude, and the infant mortality is exceedingly low, the rule being for four birds to be reared by each pair. The young upon alarm scatter immediately and lie down, crouching so low as to be almost level with the shingle or sand on which they lie. If we stand quite still for a few minutes, we shall see a bright eye open on what looks like a little lump of sand and survey us carefully. Should we make the slightest movement, the eye shuts like a flash, leaving the beach apparently lifeless but for the parent birds, who are standing some distance off or flying round in an agitated manner uttering their plaintive alarm note. Stoop and touch the apparently lifeless lump of sand; the change is instantaneous. The sand resolves itself into a young Ringed

Plover, which hurriedly jumps and runs as fast as its little pink legs can carry it away along the beach to the next nearest bit of cover, all the while waving its tiny stumps of wings and calling for mother its very loudest. The young when running are by no means easy to keep in view owing to their colouring, and we have often had to lay our heads level with the beach in order to catch sight of the young against the sky-line. The parent birds, on finding that their young are discovered, at once become alarmed and agitated, and will run almost to one's feet whistling and calling, endeavouring to attract attention to themselves from the young birds. They will both on these occasions, but more especially the female, feign broken wings, broken legs, or even death, stumbling along the beach with the greatest difficulty, attempting to fly, but failing owing to one wing being useless. Sometimes after a short struggle the bird will get on the one sound leg and start a short flight with one whole wing and one disabled one, only to find that the whole wing suddenly breaks, leaving the poor bird lying on the sand, feathers tumbled, wings and tail stretched out—the picture of helpless misery! however, we try to catch the bird, she will soon show us that it is all sham, darting off a little way to repeat the whole process, till she thinks she has led you far enough away from the young birds and that they are safe. Then she will rise with a joyous note, as if delighted at the success of her ruse, and return to call together her scattered family. We have on several occasions tried to see how far a Ringed Plover would carry this imitation, but she knows the margin of safety to an inch. The young birds continue to be tended by their parents and to feign death till they can fly, after which the family goes about in a little party till the approach of winter induces them to join in one of the numerous little flocks which range the harbour.

It is exceedingly doubtful if the Ringed Plover rears a second brood. Mr. M. C. H. Bird informed Mr. Henry Seebohm that he had found young on the 3rd of August. This is unusually late, but we suggest as the probable explanation the destruction of the earlier clutches.





NEST AND EGGS WITH HEATHER STEMS, ROUND ISLAND, POOLE HARBOUR.

PLATE XIV.



EGGS OF ÆGIALITIS HIATICOLA.

(a & e) The Shingle Type. (b) The Srawerd Type. (c & d) The Sand Type.

PLATE XV.

(vii.) THE EGGS.

The eggs are pyriform, and, though they vary considerably in shape, they always take this form. They are creamy-buff to clay-colour ground, with small spots, lines, and blotches—axis, 1'3in. to 1'55in.; diameter, '09-95 to 1'05in.

Mr. Robert Read says that he has noticed that the eggs vary very considerably in ground colour, according to the locality, those laid on the dark pebbles near inland lakes and rivers being much duller than those laid on the bright yellow sea sand. They are somewhat difficult to see unless you are practised at finding them. We find that the eggs vary very much in ground colour and markings. The ground is almost anything from an almost white to a decided yellowish buff through all shades of stone colour and French grey. There is always an underlying series of spots and blotches of a cold French grey and an overlying series of dark vandyke brown marks.

The eggs when fresh have a greenish tint, but as incubation progresses this is lost; when blown and in the cabinet they become somewhat papery in texture and tint.

There are, according to our experience, three types which intergrade, and we have named them according to the material on which they are found:—

- (1.) The shingle type with big spots and blotches (Plate XV., a and e).
- (2.) The seaweed type with numerous small spots and scribbly markings and biggish blotches (Plate XV., b).
- (3.) The sand type with exceedingly fine markings (Plate XV., c and d).

The various types are usually found in the situation which has led us to give them the above names, and we have rarely found any of the types on material not in consonance with the markings.

The eggs figured at Plate XV., c, is one of an exceedingly small clutch, measuring nearly half an inch less in length than the normal egg, and this clutch was, we believe, laid by a bird of the smaller European race which will hereafter be discussed.

(viii.) GENERAL HABITS.

The Ringed Plover is the sentinel of all the small waders, and all the winter long the little flocks of Dunlin, Sanderling, and Phalarope are accompanied by one or two Ringed Plovers which do sentry-go. When the mud flats are bare at low water, and the little birds are scattered over the mud feeding the flocks become so inextricably mixed that the Ringed Plovers perform this duty for the whole of the birds in the vicinity, When the tide is high the little flocks retire to some shingly point or sandy shore to doze away the time until the feeding grounds are again uncovered. Whilst the Dunlin are quietly preening themselves, or sleeping with one leg drawn up under them and their bills tucked away under their wings, the Ring Plover sentinel stands erect, eagerly scanning land and sea for danger. If it sees anything to alarm it, it runs from bird to bird uttering its alarm note, till the whole flock are awakened, when it takes flight, leading its charges to some safer spot to continue their siesta.

The Ringed Plover can, and, like many waders, does swim with comparative grace and ease, and it is exceedingly fond of bathing, especially in hot weather, when it will nearly soak its feathers, and then stand on some sunny, warm, sandy beach to preen and dry itself.

The flight of the Ringed Plover is very rapid, and it twists and wheels like a snipe; if not seriously alarmed or only taking a short flight it gives a few flaps of the wing to start, and then glides with wings much down curved, every once now and again recovering way by a quick beat of the wings. When in flocks, the whole flock perform their evolutions with a unanimity and precision which is wonderful, all turning and wheeling at precisely the same moment; except for single birds engaged on sentry or pilot duty for a flock of small waders, the Ringed Plovers generally keep together in a compact little flock, separating on alarm from the other flocks of waders. During the winter it is decidedly a wary little bird, but is quiet and unobtrusive during the summer. It runs swiftly with great grace,

and is exceedingly pretty to watch as it trips daintily along the edge of the water following each receding wave for morsels of food, and skipping back for the breakers as if afraid to wet its feet.

The immature bird does not in our opinion breed in the first year, that is to say, a bird hatched in 1906, will not breed till 1908. Our reason for this unorthodox view is that all the summer there will be little flocks of birds not in the full bright plumage of the breeding season which roam the Harbour at large, and never indulge in the pretty little antics of courting, and never show any signs of more serious matrimonial responsibilities. These are, we believe, birds of the year, which will not breed till the following spring.

(ix.) Enemies.

The first and most ruthless enemy of the Ringed Plover is man. In Poole Harbour the eggs are destroyed unmercifully, numberless clutches being destroyed for no apparent reason other than that man seems unable to resist the destruction of every natural object in his reach, be it birds, eggs, flowers, or ferns. The bird itself often falls a prey to that pest and curse of our bird-life, the shore shooter, who, armed with a rusty gun (which, the more is the pity, fails to explode as one hopes it will and blow his head off), lies in wait in a position covering a point where the Ringed Plover assembles at high tide, and, on the settling in of a flock, fires into their midst, killing some and wounding others. So long as there are any wounded birds left to call, the flock wheels back to try to induce their wounded comrades to go with them, thus presenting a closely-packed mass of birds as a target to the weapon of the murderer lying in wait. Again and again he fires, till at last the flock give up the attempt and, sadly reduced in numbers, try to find some safer quarters. It is pathetic to consider the numbers of poor little birds which fall as victims to their well-meant efforts to save their comrades from death.

Of the other enemies of the birds, they are mostly aerial, though occasionally the rats round the shore eat the eggs of the bird. The larger gulls, especially the immature individuals of the species Larus fuscus, Larus marinus, and Larus argentatus, systematically quarter the shores and breeding places for eggs and destroy a considerable number. They will also destroy the very young birds if they can find them, but the protective resemblance is so great that the bulk of them escape.

The Hen Harrier has also been observed searching for and eating the eggs (Handbook to Brit. Birds, p. 24, R. B. S.). I have myself seen Harriers, presumably the Montagu's Harriers, attack the mature bird, but the velocity with which it flies, twists, and dodges has always resulted in the discomfiture of the Harrier, who has swooped and struck time after time and missed.

(x.) GENERAL OBSERVATIONS.

The resident Ringed Plover of Great Britain is a somewhat larger bird than the form inhabiting the continent of Europe, and Mr. Henry Seebohm separated into a distinct race as *Ægialitis hiatīcula major*. Mr. R. Bowdler Sharpe has found that the size of the individuals of this species varies greatly, and that it is impossible to recognise this larger local race as distinct. Small specimens of the Ringed Plover often occur on the southern coast of Great Britain, and are doubtless migrants from the continent of Europe. Some years back we found at Poole a clutch of eggs (one is figured at Plate XV., e), very much smaller than the average run of eggs, and this clutch was no doubt laid by the smaller variety.

Mr. Henry Seebohm gave the following particulars:—

- (i.) Small dark race with slender legs and feet; wing 4.8 to 5.2 inches stretch, migratory and widely distributed.
- (ii.) Larger pale race with stouter legs and feet, 5 to 5.3 inches wing stretch, resident in Great Britain and the adjoining coasts.

These forms migrate in separate flocks, and have different areas of distribution. The small dark race arrives here late in the spring, and does not remain to breed, but passes north to Arctic Europe.

Mr. Seebohm, however, recognised the races as subspecific only, as they intergrade. This qualification Mr. Sharpe seems to have missed when treating of the Ringed Plover in his catalogue of the Birds of the British Museum, and there seems no reason why the larger pale form should not be treated as a local variety, and the name hiaticola major retained for it.





Porset Chantries.

By E. A. FRY.

HE Survey of Chantries in Dorset which is here printed is a copy of the document to be found in the Augmentation Office in the Public Record Office, to which the reference is "Chantry Certificates, No. 16." A few other Dorset Chantries included in churches not in this county are appended.

In November, 1545, 37 Henry VIII., an Act of Parliament was passed in order to enquire into the number of Colleges, Chantries, and Free Chapels already founded, to see if they were being carried out according to the instructions of their founders and to stop their further alienation.

Following upon this Act a Commission was issued by Patent (Pat. Roll, 37 Hen. VIII., pt. 10, memb. 36 dorso). The Commissioners appointed for Somerset and Dorset were William (Barlow), Bishop of Bath and Wells; Paul (Bushe), Bishop of Bristol; Sir Giles Strangeways, Knt.; Sir John Horsey, Knt.; Thomas Denam, Esquire; Robert Carye, gent.; and Roger Kentsey, gent.

The death of Henry VIII. on 28 January, 1547-48, stopped for a time further action in the matter, but in 1 Edward VI. (1547-48), a fresh Act of Parliament was passed to deal with all

Chantries, Colleges, &c., followed by a Commission by Patent (Pat. Roll, 13 February 1548-49, 2 Edw. VI., pt. 7, memb. 32 dorso), which appointed the following as Commissioners for Somerset and Dorset, viz.:—Thomas Speke, Hugh Poullett, John Seyntlow, and Thomas Dyer, knights; William Moryce, George De la Lynde, Robert Keylway, and Robert Metcalff, esquires; John Hannam and William Hartegyll, gentlemen, which, after reciting the Act of 1 Edw. VI., proceeded to authorise the Commissioners to enquire into the matter.

It is this Survey made by these Commissioners that is now printed. In the case of Somerset (and I believe Gloucester and Devon) there is a rental or statement showing whence the rents of the Chantries, &c., were derived, but a corresponding one for Dorset does not appear to be in existence, though in some instances the Survey itself furnishes these particulars.

The Survey consists of 10 large membranes of parchment stitched together at the head. The writing is for the most part very clear, and the matter is arranged in columns—first, the Deanery, (2) the Lands, Tenements, and possessions of the Chantry, College, &c., (3) the Gross Rents, (4) the Nett Rents, (5) the Plate and Ornaments, and in some instances a memorandum concerning the clerk or priest or other information relating to the Chantry.

It is in two parts, the first numbered 1 to 55 and the second numbered 56 to 117, which, though not exactly a duplicate of the first part, gives additional information as well as a few other chantries, &c., not contained in part one.

A memorandum at the end of part two says that "The Duchy of Lancaster is not contained in this boke." The Duchy of lands in Dorset consisted of Blandford, Shapwick, and Kingston Lacy, with its members, Abbotstreet, Barnesley, Cowgrove, Leigh, Stone, Thornhill, and Wimborne. Though I have not been able to find this particular Survey (if one was taken), there is a very full one taken 6 Edw. VI. (Miscellaneous Books, Duchy of Lancaster, No. 108), but it does not appear to have been taken in connection with Chantry lands.

I am indebted for much of the foregoing information to the Introduction to the Survey and Rental of Somerset Chantries (Somerset Record Society, Vol. II.,) by Mr. Emanuel Green, and it was on receiving this volume that I conceived the idea of supplying for Dorset what had been so admirably done for Somerset.

The numbers within brackets refer to the second certificate.

CHANTRY CERTIFICATES (AUGMENTATION OFFICE), ROLL No. 16.

Fo. 1.

THE COUNTYE OF DORCETT.

The Certificathe of Thomas Speke Hughe powlett John Seintlowe, John Rogers and Thoms Dyer, knights, Robert Kaylewey, Willm Morice, George de la lynde and Robert Metcalf, esquiers, Willm Hartegill and John Hannam, gentillmen, Comyssyons, appointed of all and singular lands, Tenements, Jewellis, plate, goodes and Stockes appteyninge or belonginge to any College, Channtrie, ffree chappell, hospitall, ffraternyte, Guylde, Salarye or Stipendarie prist, Anißsarye, Obittes or lightes win the saide Countie, By vertue of the Kinges Comyssyon to them directed dated the xiiijth daye of Januarie in the second yere of the Reigne of our Soßaigne lorde Edwarde the Sixth, By the grace of godd kinge of Englonde ffraunce and Irelonde defendor of the ffaythe, and in Erthe of the churche of Englonde and also of Irelonde the Supreme headde, as hereafter pticulerlye it appearithe. That is to saye

DECANAT. DE DORCHESTER.

1 (82.) The Chauntry of the Trynyte win the pisshe churche of Dorchester, vjl. xvs. ijd whereof in Rentis resolute xvd. And so remayneth vjl. xiijs. xjd.

Ornamentys, Jewells, plate or goods, none

2 (84.) The ffree chappell of Seint Johnes yn Dorchester. ixli. xiijs. ijd., whereof yn Rentes resolute, xlijs. viijd. And so remayneth vijli. xs. vjd.

Ornamentes, Jewells, plate or goodes, none

3 (87.) The ffraternytie or brotherhod of our ladye in Dorchester ixli. iijs. wherof yn Rentes resolute vjs. vjd. And so remayneth viijli. xvjs. vjd.

Ornamentes ijs. viijd., one Challice x vnces

4 (85.) The ffreechappell of lytle Mayne, xxxjs., wherof yn Rentis resolute xijd. And so remayneth xxxs.

Ornamentes, Jewelles, plate or goodes, none

5 (86.) The ffreechappell of Alrington, xxiiijs, viijd. wherof yn Rentis resolute, none, And so remayneth xxiiijs. viijd.

Ornamentes, Jewells, plate or goodes, none

p. me Johem Hannam

Fo. 1d.

- 6 (88.) The Guilde or ffraternytie in Weymouth, vjli. xiiijs. xd. wherof in Rentis resolute, none, And so remayneth vjl. xiiijs. xd.
 - One Challice, poz x (?) onzes, ij paire of vestm^u and ij alter clothes, xiijs. iiijd.
- 7 (83.) The Charty of Seint filten in the pisshe Churche off Wyntborne, Ciijs. iiijd. wherof in Rentes resolute, none, And so reman Ciijs. iiijd.
 - One Challice, poz v onzes, one paire of vestmentes & alter clothes ij pa. iijs.
- 8 (92.) The ffree chappell called Grene yn Shirborne, lxijs., whereof in Rentes resolute, none, And so remañ lxijs. Ornamentes, Jewelles, plate or goodes at the said ffree chappell, none Item ij belles, xxvjs. viijd.
- 9. Certeyne landes & Tents gyven by diuse p'sones for the maynetenannce of diuse obbittes, lampes, lightes and suche like vses, xliijs. iiijd. wherof in Rentes resolute xixd. And so remañ xlijs. vijd. (sic)
 - Ornamentes, Jewelles, plate or other goodes, none

ro. Dißs manors lands and Tenementes belonginge to the late College of Seint Stevyns yn Westfil, Cxlvjli. xviijs. vjd. wherof in Rentes resolute iiijli. viijs. And so remayneth Cxlijli. xs. viid. (sic)

Ornamentis, Jewelles, plate or other goodes, none

11. Stockes of money kyen & shepe in the pyshes of Godmanston, Chykerell, Knighton parva, Wyntborne Caym, Wyntboñe monketon, Chaldon, pokeswell, Steple purbecke, Tynnam, Wo'the, Studlande and Portelande, Lxxiijli. xijs. iiijd., Cxvij Shepe & xvij kyne That is to say In Money at Godmanston lxxli. Steple pbeke xs. viijd. Tynnam viijs. iiijd. portelande liijs. iiijd. = lxxiijli. xijs. iiijd.

Kyne and Shepe at Chikerell iij kyne = xxiijs.; Worth v shepe, v kyne = ljs. viijd.; Wyntboñ Caym ij kyen xiiij shep = xxxixs. iiijd.; Wyntboñe monketon xvj shep ij kyne = xxxvjs.; Chaldon iij kyne = xxiijs.; pokeswell j cowe = vijs.; Steple peke vij shepe = ixs. iiijd.; Tynnam xv shepe = xxs.; Studland j cowe = vijs.; Knighton lx shep = vjli. = xvjli. xvjs. iiijd. p. me Johem Hannam

DECANAT. DE SHASTON.

Fo. 2.

12 (98.) The ffree chappell of Thorneton in the pishe of Marnehull, liiijs. Rentes resolute, none, And so remayneth liiijs.

Ornamentes, Jewelles, plate or other goodes, none

13 (93.) The Chuntrye of Seint Katheryne in the pishe churche of Marnehull, ixli. xvijs. iiijd. whereof in Rentes resolute xlviijs. viijd. And so remayneth vijli. viijs. viijd. Ornamentes, Jewelles, plate or other goodes, none.

14 (94.) The Chuntrye of Seint Katheryne win the pisshe of Gillingham, vjli. xiijs. iiijd. wherof in Rentis resolute xjs. And so remayneth vjli. ijs. iiijd.

Ornamentes, Jewelles or other goodes, none

- 15 (100.) The hospittalle of Seint John in Shaston, iiijlt.
 whereof in Rentes resolute, none, And so remayn iiijlt.
 Ornamentes, Jewells or plate, none
 One bell p'ce iijs. iiijd.?
- 16 (99.) The ffree chappell of Mylton yn the pishe of Gyllinghm, xlvjs. viijd. wherof in Rentes resolute, none, And so remayneth xlvjs. viijd.

Ornamentes, Jewelles, plate or other goodes, none

- 17 (97.) The Chauntry of Seint Katherine in the churche of the late monastry of Shaston, vjli. xiijs. iiijd. whereof in Rentes resolute, none, And so remayñ vjli. xiijs. iiijd.
 - Ornamentes, Jewells, plate or other goodes, none
- 18 (96.) The chauntry of Seint John Baptiste in the churche of the said late mon of Shaston, Cvjs. viijd. whereof in Rentes resolute, none, And so remayn Cvjs. viijd. One challice of sylver, pez v onzes, j paire of old vestem, i white chesible, ii cruetts of tynne ijs.
- 19 (95.) The chauntrye of Seint Annes de la gore yn Shaston, xiiijli. viis, whereof in Rentes resolute vs. vjd. And so remayñ xiiijli. xviijd.

Ornamentes Jewells plate, none Implem^{ts} wth certein necessaries, viijs.

p̃ me Johem Hannam

Fo. 2d.

- 20. Certen lands & Tents gyven by diūse psons for the Sustentacon of lampes, lightes & obittes in diūse churches at the saide deanrye, vjli. xiijs. xjd, whereof in Rentes resolute xiijs. iiijd. And so remayneth vjli. vijd.
 - Ornaments, Jewells, plate or other goodes, none.
- 20a. Certeine stockes of monye, kyen & shepe gyven for the mayneten'nce of obyttes, lights and Annyūsaries yerelye to be in the pishe Churches of marnehull,

Berehacket, holewalle, Gillingham, burton, lyllington, Caundell bishope, Compton Abbot, henton marye, margaret \overline{m} she, heydon, motcombe, Seint peters in Shaston, Iwerne mynst & Stalbrydge. \overline{iiii} iiii iiii iii iii iii iii iii iii ii ii

In monye at Pulhm xvli., Marnehull vili., Berehacket xxjs., Burton xxiijs., lillington xxiiijs. iiijd., Caundell bishope viijd., Compton Abbot viijs., motcombe xvjs. = xxvli. xiijs. Kyne and shepe at Marnehill iij. Kyne, xxxx., Also Cl shepe vijli.; Hollewale CCxl shepe xxiij/i.; Gyllinghm viij kyne iiij/i.; Yetmyster ij kyne shepe ij kyne remayneth towards the maynetennce of a sole (?); Caundell byshoppe ij kyne xijs. shepe vli.; Henton marye j cowe vjs. viijd.; margaret mshe ij kyne xxs.; heydon j cowe vs.; motcombe xj kyne Cjs., xx shepe xxxvjs. viijd.; ywerne mynster v kyne xlijs.; Stalbridge j cowe xs = ljli. xjs. iiijd.Challices at Shaston j pez v vnces; marnehull, ij pez vj onzes di.; hollewalle j pez vj onz di.; Gillinghm j pez iiij onz; Caundell epi j. pez vj onz di. = vj [Challices] pez xxviij onzes di.

Vestmen^{ts} wt čtein Implements at Shaston, j vestme^t, j white chesybe, ij cruettes of tynne ijs.; marnehull, one crosse of byrell vs., ij paire of vestm^{ts} xs., ij curtens, iiij alter clothes, ij corpas cases čten Implts = ijs. vjd; hollwalle, vestm^{ts} xxvjs. viijd., certeine Implem^{ts} xxjs.; Gillinghm, ij paire of vestm^{ts} vjs. viijd.; yetmyster, j paire of vestm^{ts} ijs., j small gold ringe, pez j di., a girdell tapped wt Sylūer i onz di., a paire of bedis wt čteine sylū stones, pez ij onz; Caundell Byshoppe. j litle gold ringe, poz i di., ij paire of olde vestm^{ts} wt ij old Alter clothes iiijs. = iiijli. vs., ij onces di. & ij peny weight of Silūer & golde.

Fo. 3.

DECANAT. DE PYMPNE.

- certeyne landes and Tents in Gussage all Halowes pteynyng to goddes hous in the Countye off Southt (sic), xixli. xs. xd., wherof in Rentes resolute, none, And so remayn xixli. xs. xd., Ornamentes Jewelles plate or other goodes, none
- 22 (114.) The Chauntrye of langton otherwise callid langblandford callid Gybbons Chauntrye in the pishe churche
 ther, vijli. wherof in Rentes resolute, none, And so
 remayn vijli.

Ij paire of vestm^{to}, iij old Alter clothes ijs. vjd.

23 (115.) The ffreechappell of westhemsworthe, iiijli., wherof in Rentes resolute, none, And so remaynth iiijli.

Ornamth, Jewelles, plate or other goodes, none

24 (110.) The college or ffreechappell of o' Sossaigne lord the king in Wymborne mynst, ljli. vs. vjd. wherof in Rentes resolute vjli. xiijs. iiijd., In ffees vjli. vjs. viijd. And so remayñ xxxviijli. vs.

Ornamis, Jewelles, plate or other goodes, none

25 (108.) The Office of the Sextyne in the College of Wymborne, viijli. xvijs. ijd. wherof in Rentes resolute iijli. xiiijs. xd. And so remaynth Cijs. iiijd.

Ornamentes, Jewelles, plate or other goodes, none p me Johem Hannam

Fo. 3d.

- 26 (107.) The Chauntrye in the said College callyd Radcottes Chauntrye, vli. xiijs. iiijd., wherof in Rentes resolute vd. ob, And so remayn vli. xijs. xd. ob
 Ornamentis, Jewelles, plate & other goodes, none
- 27 (109.) The greate Chauntrye in the said College callid Brenbrys chuñty, xxxiiij/i. vijs. vd., wherof in Rentes resolute x/i. ijs. iiijd. And so remayn xxiiij/i. vs. jd. Jewelles, iij challices, pez lv onz. Ornamentes, iij payre of old vestmb, vjs., ij table bordes, j ladder, ijs.

Itm j challice belonginge to Seint James, pez v onz, ij basons of sylū & gilt gyven to the kinges ma^{tie} by the pishoners of wimborne foresaid, pez l onzes = viiis. Cx onzes

28 (106.) The Chauntrye of margaret countisse of Richemonde and Darbye mother of King Henry vijth, xj/i. xvijs. iiijd., wherof in Rentes resolute xvs. iijd ob, And so remayn xj/i. ijs. ob.

Ornamentes, Jewelles, plate or other goodes, none

29 (110.) The first p̃bend in the said College callyd the first Staulle, xviij*li.* xs., whereof in Rentes resolute, x*li.*, And so remayneth viij*li.* xs.

Ornamentes, Jewelles, plate or other goodes, none

(110.) The seconde pend in the said College callid the seconde staulle, xviijli., wherof in Rentes resolute xli. iiijs. xd. And so remayneth vijli. xvs. ijd. Ornamentes, Jewelles, plate or other goodes, none The thirde pend in the said College callyd the thirde

Staulle, xxiijli., wherof in Rentes resolute xli. iiijs. xd., And so remay xijli. xvs. ijd.

Ornamentys, Jewelles, plate or other goodes, none

(111.) The fourthe pend in the said College callyd the fourthe Staulle, xvijli. vs. xjd. wherof in Rentes resolute xli. iiijs. xd., And so remayn viili. xiijd.

Ornamentys, Jewellis, plate or other goodes, none

30a (113.) The Chauntrye in Holte, Cvjs. viijd., whereof in Rentis resolutes, none, and so remayn Cvjs. viijd.

Ornamentys, Jewellis, plate or other goodes, none

p me Robertum medcaulff, p me Johê Hannam.

Fo. 4.

30b. The ffraterntye of Seynt George yn Poole, xxxx. xd. whereof in Rentes resolute iijs. viiijd, And so remayn xxvijs. ijd.

Ornamentes, Jewelles, plate or other goodes, none

31. Certeine landes and Tenementes gyven for the maynetennce of diuse obbittes and lightes win diuse pishe Churches win the said Deanrye, xxjs., whereof in Rentes resolute iiijs. iiijd., And so remayn xvjs. viiid.

Ornamentes, Jewelles, plate or other goodes, none

Certen stockes of kyen Shepe and monye in the pishes 32. of Gussage Mich'is, hampston, Tarrannte Kingeston, Pympne, Longcrechill, Edmondeshm. Chettill, more Crechill, & ham mone, as hereafter ensewithe, xli. iijs. iiijd., xx iiij. shepe xv kyne, That is to say In kyen and shepe at Gussage mich'is, xxx shepe, xxxs.; Hmpston, j cowe xiijs. iiijd.; Tarrante Kingston, j cowe viiijs.; Hanley, j cows vjs. viijd.; Pympne, ij kyne xvs.; longe Crechell, I shepe Is. iij kyne xxs.; Edmondshm, kyne j cow, vijs.; chettill, j cowe vjs. viijd.; More Crechill, v kyne xls., iij shepe vjs. viijd = xli. iijs. iiijd. Money at Gussage Mich'is, xxvjs. viijd.; Hammone, iijs. iiijd.; longe Crechill, xlijs. iiijd. = xli. iijs. iiijd.

DECANAT. DE WHITCHURCH.

- 33 (74.) The Chauntrye of our blessid ladye win the Churche of Wotton Glanvylde, vjli. xviijs., wherof in Rents resolute, none, And so remayn vjli. xviijs.
 - Ornam^{to} & Jewells, j challice, pez ix onz di., ij paire of old vestm^{to} & ij Alter clothes ijs. xd.
- 34 (75.) The chappell win the mansyon of the Manor of Canfforde, xli., wherof in Rents resolute, none, And so remayn xli.
 - Jewells & ornam^{to}, j challice pez vj onz, iij spones of sylū pez ij onz di., j pewter dishe, j paire of old vestm^{to}, iijs. iiijd.

35 (76.) The Chauntrye of lychet matraus, callid Gybbons Chauntrye, xls., wherof in Rentes resolute, none, And so remayn xls.

Ornam¹, Jewells, plate or other goodes, none p me Johem Hannam

Fo. 4d.

36 (77.) Three chauntryes in lychett matraus gyven to the pson to fynde three prystes ther, xviijli. xijs. ixd., wherof in Rents resolute, vjs. ijd., And so remayn xviijli. vjs. vijd.

Ornaments, Jewells, plate or other goodes, none

37. Certeine landes and Tenementis gyven for the maynetenance of diuse Obytts & lightes win diuse churches the said Deanrye, xxxvijs. iiijd., wherof in Rents resolute, none, And so remayn xxxvijs. iiijd.

Ornaments, Jewells or other goodes, none.

of flyffyet nevell, Iberton, wyntborne Kingston, blockesforde, pydle hynton, Stickland, pydle Trenthed, buckland, Stouremyst mshall, Doreweston And Ockeford shilling xxs. jd., xxvj Kyen, one wenlinge, lxviij shepe, That is to say In Kyen & shepe at flyfiet nevell, iiij kyne, xls.; Iberton, ix kyen iiijli. ijs., xij shepe, xxs.; wyntbone Kingston, iiij shepe, vjs. viijd., j cowe viijs.; blockesforde, iiij shepe, vs. iiijd.; pydlehynton, vj shepe vijs.; Stickeland, j cowe, viijs.; pydell Trenthed, xl shepe xls.; Bucklonde, vj kyen lxs.; Stouremynst mshall, vj shepe, vjs., iiij kyne, xls., wenlinge iijs. iiijd.; doreweston, j cowe vijs. = xvjli. xiijs. iiijd.

Money at Ocfford Shillinge, xiijs. iiijd.; Sturmynst \tilde{m} sshall, vjs. ixd. = xxs. jd.

p me Robertum Meatcaulf, p me Johem Hannam

Fo. 5.

DECANAT. DE BIRTPORTE. *

39 (56.) The Chauntrye of Beamyster in the pysshe Churche of Beamyster, vjli. iijs. iiijd., wherof in Rents resolute, ijd. And so remayn vjli. iijs. iid.

One challice, pez vij onzes, Certen Ornaments viijs. iiijd.

40 (57.) The Chauntrye of netherburye of the foundacyon of Thomas Powlet, vjli. xvjs. viijd., wherof in Rents resolute, xxs., And so remayn Cxvjs. viijd.

Ornamentys, Jewells, plate or other goodes, none

41 (63.) The ffrechappell of Kyngston, xli. vjs. viijd., wherof in Rents resolute, lvs. iiijd., And so remayneth vijli. xjs. iiijd.

Ornamentis, Jewellis, plate or other goodes, none

42 (65.) The ffreechapell of Stertehyll, iiijli. wherof in Rents resolute, none, And so remayñ iiijli.

Ornamentys, Jewells, plate or other goodes, none

43 (66.) The ffreechappell of Seint Elen yn Chillffrome, vjli. vijs., wherof in Rents resolute, xijd., And so remayñ vili. vis.

One challice pez xj onzes, Certeine ornaments ijs.

44 (67.) The ffreechapell of Corton, iiijli. xs., wherof in Rents resolute, xs., And so remayñ iiijli.

Ornaments, Jewells, plate or other goods, none.

45 (64.) The Chauntrye of Abbotesburye callid Claptons chuntry, Cviijs. iiijd., wherof in Rentis resolute, none, And so remayn, Cviijs. iiijd.

Ornaments, Jewells, plate or other goods, none

46 (68.) The ffreechapell or psonage of wytherston, liijs. iiijd., wherof in Rents resolute, none, And so remayn liijs. iiijd.

Ornamentys, Jewells, plate or other goodes, none

^{*} This heading precedes No. 38 in the original document, which is a mistake since all the places mentioned in No. 38 are in the Deanery of Whitchurch.

47 (69.) The chappell or psonage of wambrooke, vijli. iiijs. iiijd., wherof in Rents resolute, none, And so remayn vijli. iiijs. iiijd.

Ornaments, Jewells, plate or other goodes, none.

48 (59.) The Chauntrye of Saint michell in Birtporte callid Mondaynes Chuntry. xijli. xiiijs. ixd., wherof in Rents resolute, vs. iiid., And so remayneth xijli ixs. vd.

One challice, pez x onzes, ornaments xs., j bell vjs. viijd., ij old candelstickes vjd.

p me Robertũ Medcaulf, p me Johem Hannam.

Fo. 5d.

- 49 (61.) The hospittalle of Seint Jones yn Birteporte, vjli. xvs. viijd., wherof in Rents resolute, xvjs., And so remaynth Cxixs. viijd.
 - One challice & one gold Ringe, pez xij onzes, ij lytle bells xxs., certeine ornaments xxd.
- 50 (60.) The Chauntrye of our ladie win the pysshe Churche of Birteporte, Ciiijs., whereof in Rents resolute, none, And so remayn Ciijs.
 - One Challice pez vj onz, Ornaments, Jewells or other goodes, none
- 51 (62.) The house or hospytall of Leypars callid Marye Magdalene in Athlington nere Birteporte, vjli. viijs. iiijd., wherof in Rents resolute, none, And so remayn vjli. viijs., iiijd.
 - One challice pez vj vnzes, ij paire of old vestm^{ts} & ij candelsticks, viijd., ij bells p̃ce xxs.
- 52 (58.) The chauntrye of Seinte Katheryne in the pisshe Churche of Byrteporte, Cxviijs. iiijd., wherof in Rents resolute, none, And so remayn Cxviijs. iiijd.
 - One Challice pez xviij onz iij qrte, ij paire of old vestm^{ta} iijs. iiijd., Certeine other orname^{ta} w^t diűse pcells of Implementys vs.

53. Certeine landes callid holdyche meade & Avense in the pisshe of Chardestock, of the yerelye value of xli., And certeine other lands yn Wolmyngton, of the yerelye value of xls., and certen other lands callid Garnetts pytte of the yerelye value of iiijli. vjs. viijd., Yn all xvjli. vjs. viijd., wherof in Rents resolute out of the land callid holdiche meade, to the lorde Cobhm vjli. xiijs. iiijd.

Also out of the land callid Garnetts pytt to the Bishope of Sar duringe his lyfe xxs.

Also to theyres of Mr. Wolmyngton out of the lands called Wolmymgton xxs, And so remayñ vijli. xiijs. iiijd.

One challice pez ix vnzes, one pax of Sylū pez ij vnzes, xij spones, viij vnzes, j palre of vestm^u w^t other stuffe iijs. iiijd.

p me Robertum Medcaulf, p me Johem Hannam

Fol. 6.

- 54. Certeine Stockes of Kyne and shepe at the pysshes of lyme Regis, langton hering, Beamyster, lytton, powerstoke and Mayden Newton, xli. xs. iiijd.; l shepe & iij kyne, That ys to saye In Monye at lyme Regis xli.; langton hering, xs. iiijd.; Kyen & shepe at Beamyster, j cow vijs.; lytton, j cow xiijs. iiijd.; powerstocke, j cow xs.; mayden newton, l shepe, ls.; Stockland j challice j pax of sylū pez ix onzes, vestmentys ijs.
- 55. Certeine landes and Tenementes gyven for the maynetenannee of Obbyttes, lampes, lightes and masses in diuse pishes w'in the saide deanrye, Cvijs. xd., wherof in Rents resolue, vjs. viijd., And so remayn Cjs. ijd.

Ornamentys, Jewells, plate or other goods, none p me Robertum Medcaulff, p me Johe Hannam Sm To^{tis} Annur. Valoris Omr. ter & possess. ad Colleg. Cant. lib. Capell &c infra pdcm Comitate Dors. p'tinen siue Spectan, Dcxxxjli. jd., Wherof in Rents. resolute xx xiiijli. viijs. ijd., And so re Dxxxjli. xjs. xjd.

Ornaments, viijli. vs. iiijd. plate c xxij vncs, j pa Annulü de Auro. Stoks of money Cxijl. xixs. Stooks of Catall xx xixli. vijs.

THE COUNTI OF DORS.

Fo. 7.

A breif Certificate of all and Singulr Colligs, Hospitalles, ffratnyties Guyldes Brotherheads and Stipendaryes as bene in the Kyngs Mats hands by the late Acte of Pliament not onely all the Names of the said Colliges Chauntries Hospitalls fratnyties Guyldes brother Heads and Stipendaryes With the yerely value of the same But also the deduccons Repriss and Clere remayne of the same And Howe moche therof Dothe remayne to the Maisters Gouners and incumbents of the same And also What preachers Beadmen Power people and Gramer scoles haith ben heretofore founde and relevyd by the same as hereafter pticulerly yt apperith That is to say

DECANATUS DE BRYDPORTE.

56. Cantiā in ecclia pochiali de Beamist, Johes Myntern incumbens ibm vjli. iijs. iiijd., wherof Deducted for rent resolute ijd., for the xth, xijs. And so remañ Clere Cxjs. ijd., All whiche said Some of Cxjs. ijd. the Sayd incumbent receyued yerely to his owne vse. There is nother pcher, Gramer Scole, Power people nor Beadmen, founde or relevyd of the pmysses as in the certificate exhibited to the kings Comission apperith (Penc. Cs)

57. Cantiā de Netherburye in ecclia de Netherburye, Johes Neweton, incumben ibm, vijli. xiijs. iiijd., wherof deducted for money Payde for the obbyte of the funder And distributed amongest the powre people xxs. And for the xth xs. ixd. ob.q. And so Remañ Clere vjli. ijs. vjd.q. All whiche he receyued yerely of henry Powlet & mary his Wif but oute of what lands he he (sic) knowithe not.

Ther is a Gramer Scole kepte by S' Martyn Smythe preste and receuse for his wagis Cvjs. viijd. yerelye by thands of John Herne and Henry Sawe, Ther is no power people releved nor yet precher founde of the pmysses.

- 58. Cantiã Ste Katine infra eccliam pochialem de Brytporte Willm Sturbrige incubens Cxviijs. iiijd. x^{ma} inde xs. jd.q. So Reman Cviijs. ijd. ob.q. All whiche the said incumbent receyued yerely to his Owne vse as in the certificate exhibited to the Kyngs Comyssions it Appereth (Penc. Cs)
- 59. Cantiā Sti Michis voc mundyns in Brytporte, Johes Marye & Johes Baker incuben. xijli. xiiijs. ixd. Wherof deducted for rent resolute vjs. iijd. x^{ms} xxs. vjd. ob.q. And so Remañ Clare xjli. vijs. xjd. q. All whiche the said ij prests receyued towards ther lyvings the one beyng resident and thother not resident

(Penc. eor. utriusq. Cs.)

60. Mom that this was omyttid in writing and therefore put last in the Document (?)

Cantia bte marie infra ecclia pochialem De Britporte Wills. Hamonde incüben Ciijs. iiijd. x^{ma} xd. Reman iiijli. xiijs. iiijd. Memor^d that ther is no lands Appteynyng to this Chauntry but iijs. iiijd. for a litle howse w^t a garden thevnto belonging but alweys was founde by the bailes of Brytporte at their pleasor and ther is no foundacon of the same As by ther certificat exhibyted to the Kings Comyssions it apperith.

(Penc. iiijli. xiijs. iiijd.)

- 61. Hospitle sci Johis Bapte in Briport Willms Charde incumbens ibm, vijli. xvjs. iijd. wherof deducted for rent resolute xs. xd. xma dno Regi Res (?) xvjs. vijd. ob. And so Remañ Clere vjli. viijs. ixd. ob, All whiche the incumbent ther yerelye receyued to his Owen vse In all whiche chuntres and hospitall [No. 58-61] ther is nother Gramer Scole Precher nor any power people or Beadmen relevyd of the said pmysses as in ther Seuall certificats exhibited to the kings Comyssions it apperith (Penc. Cs)
- 62. Domus siue hospitle leprosor de Athlyngton ppe vill de Brytporte, Robtus Blakwell incumbens, viili. viijs. iiijd. This Hospitall was ordeyned for the releif of lepers and lazar men And to one priste to say masse and other suice before them the pfits wherof the preist haith for his Stipend or Salary And the power men lyvithe by Almese of the Towne and other.

(Penc. viijli.)

Fo. 7d.

- 63. Liba Capella sci Jacobi in Kyngston Russell, Rogerus Bonde incüben ibm, xli. vjs. viijd. wherof deducted for rent resolute lvs. iiijd. xma xijs. jd. ob. And so Reman Clere vjli. xjxs. ijd. ob, All Whiche the said incumbent receyued yerely to his Own vse, Ther is no pecher Beadmen nor power people relevid nor founde of the pmissez nor no gramer Scole kepte ther
 - Memord that the pishons of Kyngston clame yt to be a pishe Churche and no free Chappell and that within this xlii yeres all devyn suyce was done ther as apperith by ther certificat And that the pson therof alweis allowed to the pson of longbredy to haue devyn suyce ther iiijlii. by yere (Penc. vili.)
- 64. Cantia vocat Claptons Chuntry, Thomas Joskyns incumbent Cviijs. iiijd. x^{ma} xs. viijd. Reman iiijli. xvijs. viijd.

This incumbent is payed his Salarye or Stipend by the Kyngs Ma^{tie} out of the possessiones of the late Monastye of Abbottsburye for somoche as the said Chuntrye was founded within the said late Mon And ther is no lands Appteynyng to the same excepte a howse and a litle garden whiche was valued in the first certificat at xxd. by yere (Penc. vili.)

65. Liba Capella de Stertyill als voc Seynt luks chappell infra pocham de Burton, Thomas Smythe incumben, iiijli. x^{ma} vijs. ixd. ob.q Reman lxxijs. ijd. q, All whiche the said incumbent yerely receyūed to his owne vse

(Penc. lxxijs. ijd.)

- 66. Liba Capella sce Elene de Chilfrome, Johes Swanne incumbens ibm, vjli. vijs. Wherof deducted for rent resolute xijd. And so Remañ Clere vjli. vjs. All whiche the said incumbent yerely receyued towards his Owne lyving (Penc. Cs)
- 67. Liba Capella de Corton infra poch de porteshm, Johes Willoughby, incumbens, iiijli. xs. Wherof deducted for rent Resolute xs. xma viijs. and so Reman Clere iijli. xijs. Whiche the said incumbent yerely Receyued to his owne vse (Penc. lxxijs.)
- 68. Liba Capella Siue Rectoria de Wytherston, Wills Mone incumbens ibm., liijs. iiijd. All Whiche the said incumbent receyueth to his owne vse And allegith it to be a psonage and no free Chappell And Win the said Chappell ther is no devyne suice said at day tyme But the pishoners haith all suche at the pishe Churche of powerstocke being Distant A myle from the said Chappell (Penc. liijs. iiijd.)
- 69. Capella siue Rtoria de Wamebroke, Henricus Stapull, incüben ibm, viijli., iijs. All whiche thincumbent ther receyueth to his owne vse And saith that yt is a psonage and ther is wthin the said psonage (sic) of Wamebroke lx and mo howseling people as it Apperith in ther certificate.

In all whiche Chappells and psonages [Nos. 65 to 69] ther is nother power people nor Beadmen relevid nor eny Gram Scole nor preacher founde of the pmisses as in ther Seuall certificat it will appere

70. Obbitus Robti Garnett foundat. in ecclia pochial de Lytton iiijs. viijd. wherof deducted for rent resolute xijd. And so Remañ Clere iijs. viijd. Wherof is geven to ye Curate for Sayng masse & dirige viijd. And iijs. residewe distributed to the power people

Memord that this was founded by S' Robte Garnett preist deceased to contenu for xx yeres And after to remayne to theires of the said S' Robte Garnett

(To the pore lijs.)

- 71. Seruicm bte Marie in lyme Rs. fundat p dius psonas xxxviijs. xjd. All the said lands appteynyng to the said suice was geven to the mayntennce of or lady Suice in lyme Rs. abouesaid to the fynding of a clerke and Children as in ther certificate it will appere
- 72. Cert. terr. vocat Holdiche meade & Avense iacen in poch de Chardestoke Annui valoris xli ac cert. terr. in Woolmyngton Annui valoris xls. necnon cert. terr. vocat Garnespitttes Annui valoris iiijli. vjs. viijd. in toto p Annu xlijli. vjs. viijd. Wherof deducted oute of the lands called holdiche maede & Avenerse to the Lorde Cobhme vjli. xiijs. iiijd. Also oute of the lands called Gernespittes During the lif of the Busshope of Sar xxs. And also oute of the lands lyeng in Wolmyngton to Theires of Robte Wolmyngton xxs. And so Remañ Clere vijli. xiiis. iiijd. All whiche were ymployed to the mayntennce or fynding of a preist At Will viz., oute of the lands called holdiche mead & Avenarse lxvjs. viijd., oute of the lands in Woolmyngton xxs. And oute of the lands called Garnetts pits lxvis. viijd.

Memord that the said lands called holdiche mead and Avenerse were taken of the lorde Cobhm by Willm Cokesden Willm Dilling and John Colman for time of ther lyves & the longest lyver of them paing to the said lorde Cobhm vjli. xiijs. iiijd. over & besids lxvjs. viijd. pd to the preist afre menconed And after to remayne to the said lorde Cobhm and to his heires for ever As in an Indent to them made it will appere Also the said lands in Wolmyngto were geven by Robte Wolmyngton to contenewe for xxu yeres as in a dede made in vigil bte marie Anno xxviijno nup. Rs henrici viij it will appere

Fo. 8.

73. Cert. terr. & tents iac in Stockelande dat p sustentar Stipend
Johnes Kilburye nup. Incübens ibm, lvjs. All wych was
yerly payde onto the said Sir John towardes his
Stipend over and beside the devocon of the pishioners
(Penc. lvjs.)

(To be concluded.)



The Ancient Aemorial Brasses of Jorset.

By W. de C. PRIDEAUX.

PART III.

YETMINSTER ST. ANDREW.

SIR JOHN and LADY HORSEY, of Clifton Maubank.

THIS brass is now lying loose at the Rector's house at East Chelborough."—Haines, 1847.

"John Horsey, Esq., for the body to Henry VIII., lord of the manor of Clifton, 1531, and wife Elizabeth, lady of the manor of Turges Melcombe, sister and heiress of Robert Turges, Esq., the son and heir of Richard Turges, Esq., with scrolls at sides. (relaid?)."—Haines, 1861.

"A fine brass to Sir John Horsey in complete armour, belonging to the Church (Yetminster), but not now affixed in any part of it."—Hutchins, Vol. IV., p. 456.

Position at the present time.—Fixed to a slab against the south wall of the south aisle of Yetminster Church at the expense of Major Horsey, 1891. With reference to, and as a probable explanation of, the chronicled movements of this fine brass to its present resting-place, I will quote Hutchins as follows:—

"The present parsonage house (of Lucomb als. East Chelborough) was built by the Rev. Blakley Cooper, M.A., of Wadham College, the Rector and then patron of the living, in the year 1832. He was at that time (instituted 1809) resident Vicar of Yetminster, but during the Reform Bill riots, becoming unpopular at that place, he took up his residence at East Chelborough."

Size.—Figures, 38in. in height; inscription, 41 in. by 5\frac{3}{4} in.

Heraldry.—Two shields remain, 5\frac{3}{4}in. by 6\frac{1}{2}in., bearing the following arms:—

- Quarterly 1st and 4th, azure, three horses' heads, couped or, bridled gules,* Horsey. 2nd and 3rd, Barry wavy of eight † arg. and sable, a saltaire or, Malbanck.
- 2. The same, impaling Azure a chevron between three cross-crosslets fitchée or, within a bordure engrailed of the second, *Turges*.

Description.—Sir John Horsey is bare-headed, and has the long hair of the period; he wears a collar of mail, a cuirass richly chased with scroll work, having pauldrons, the right being the larger; on both are passe-gardes. His coutes are alike in size [cf. John Dauntesay, Esq., 1559, West Lavington Church, and John Baynton, Esq., 1516, Bromham Church, in the adjoining county of Wiltshire, both having the left nearly twice the size of right]. His genoullières and anelace ‡ are large; brassarts and vambraces are plain. His hands, without gauntlets, are raised in attitude of prayer. He has a short skirt of taces, having two fluted tuilles dependent from it, and beneath all a skirt of mail. His legs are encased in fluted jambs, on his feet

^{*}Tinctures given by Haines and possibly visible in his day; but given in Harl. MS. 1,160, fo. 86:—Azure three horses' heads couped and bridled or; and in Harl. MS. 5,827 (as copied in Baring Gould's Armory of the West) Az. three horses' heades arg: raynes and bridles or.

[†] Agreeing with Harl. MS. 1,166, fo. 86.

^{‡&}quot; An anelace and a gipciere all of silk hung at his girdle, white as morwe milk" (from the description of a knight's costume in the prologue to *The Canterbury Tales*).

are broad round-toed sollerets, rowell spurs being screwed into the heels. His sword is of the usual length and hung at his left side, its point appearing behind the right heel.

His wife wears the pedimental head-dress of this time and earlier, perfectly plain, a long gown, puckered at the neck, tight sleeves, furred cuffs, and an ornamented girdle with a pomander dependent from three rosettes; over all a mantle, falling in long and graceful lines. [The brass to Sir Thomas Brooke, Lord Cobham, and Dorothy, his wife, 1529, Cobham, Kent, is very similar, varying only in trifling ornamental details, and might have been made by the same craftsman.]

"Jesu Mercy," "Lady helpe," are often found on small scrolls at the corners of a slab, or the slab may be "powdered" with them, as at St. Mary's, Reading, 1416, Wiston, Sussex, 1426, and Lady Bigbury's c. 1460, Bigbury, Devon. Our example with scrolls "powdered" (ten) is one of the latest extant, and was probably spared on account of distance from London or some other large centre, where it was not uncommon for relatives to remove them, rather than risk the total destruction of the monument at the hands of fanatics.*

The inscription, with usual abbreviations and in church text of the Tudor period, calls for no special comment, except for the omission of the date of his wife's death, in all probability pointing to both effigies being fixed before her decease:—

Of you charyte pray for you soules of John Horsey Esquyer for you body to our sou aigne lord King Henry you vill and sutyme lord of Clyfton in you Countie of dorssett and Elizabeth his wyle sometyme lady of Turges Melcombe in the seid Countie syster and heyre of Robert Turges Esquyer sone and heire of Richard Turges Esquyer sutyme

^{*} The inscription on a rectangular brass plate below Thomas Golde's brass in Crewkerne Church, 1525, has the words, "Pray for the soule of" and "on whose soule Jsu have mercy" chiselled out.

lord of ye seid Turges Melcombe which John deptid ye viii day of July ye yer' of or lord Mt Ve XXXI and Elizabeth deptid ye day of ye yer' or lord god Mt Ve on whose soules Jhu have mercy amen

Although the Horsey family has been connected with Dorset from an early period, their ancestral dwelling-place was, no doubt, in Somerset, for they were settled near Bridgwater before the time of Henry II., and in that reign were owners of the Manor of Horsey; they also held the Manor of Leigh Powlett, in Devon, and were connected with Exeter. One of the family, of Exon, bore the well-known Az. three horses' heads argent, reins and bridles or, (B.M. Cottonian MS. Faustina E, iii., Part 1).

Ralph Horsey, of Horsey, one of the collectors of subsidies for Somerset, had a son, John, who by his marriage with Elena, daughter and heiress of Philip Maubank, of Clifton (died 9 Henry VI.), became connected with Dorset and made Clifton Maubank "their principal seat" (Coker). Thomas Horsey, his grandson, married Elena, daughter of John Fitzjames, of Redlinch, County Somerset (died 8 Edward IV.), John, his son and heir, age 6.

Sir John Horsey (died 1531), married Elizabeth, daughter of Richard Turges, of Melcombe, and was esquire of the body to Henry VIII. Their son, Sir John Horsey, who married Joan, daughter of Maudlin, added greatly to the family estates. In 1539 the Priory of Longleat was sold by the Crown to him, and in 1540 he resold it to Sir J. Thynne (the first of the family who came into Wilts to reside). The property then sold consisted of about 100 acres, with an old dwelling-house, priory, orchard, and garden, and was valued at £53. He died in 1546, and was buried at Sherborne in the north aisle. His daughter, Eleanor, married Sir Thomas Trenchard, of Wolfeton, and his grand-daughter, Grace Trenchard, married Sir John Strangwayes.

238 ANCIENT MEMORIAL BRASSES OF DORSET.

With Sir John Horsey, who died s.p. 1589, that branch of the Horseys ended. His relative, Ralph Horsey, of Diggleswell, Herts, then succeeded to the properties, and by his indiscretions * and those of his son, Sir George Horsey, who married Elizabeth, daughter of Sir John Freke, of Shroton, the property of the Horseys was alienated, a fragment only remaining to his son (in Thornford), 1637-1638.



^{* &}quot;It is not improbable that much of his money went in the speculation of making iron with pit coal by Dudley Dudley and other partners under a Pateut, 14 Car. I., of which see an account in Dudley's 'Metallum Martio, 1665.'"

Shaw's History of Staffordshire, Vol. II., p. 1.



Roman Favements.

By H. COLLEY MARCH, M.D., F.S.A.

HROUGH the promptitude and energy of Capt. Acland, our Curator, aided by generous pecuniary support, the Durngate Street Mosaic is now happily placed on the floor of the County Museum. It bears a striking, general resemblance to that brought from Olga Road. They are obviously of the same period, and may even be by the same artist.

The tesselation we have now to consider, displays the various designs that we may conveniently distinguish as 1. The Meander fret. 2. The Cable, a twist of two strands. 3. A Braid or Plait of three strands. 4. The Guilloche, a series of interlaced loops. 5. The Fylfot fret. 6. The Duplex. 7. A circular floriated Centre, of cruciform treatment, unsymmetrically disposed, and surrounded by rays developed from the Meander. 8. An Etruscan Amphora in each of the four corners. These urns differ in detail from each other. Out of one of them spread phyllomorphic elements; twin sprays ascend from the base of the second; and from each of the others issue a pair of crested snakes, which protrude vibrant and forked tongues.

In respect of the material, the red tesseræ are of brick, and the others, the white, the blue-grey, the yellow, and the black, are all of local stones.

To have written the foregoing is to have involved myself at the outset, in a maze of controversial subjects from which I now proceed to extricate myself.

Tessera.—The meaning of the word tessera was not originally that of a die or cube. It seems easy to associate it with the Greek réssapes, four, though the connection is denied by some philologists.

Many years ago there was found in Monmouthshire a stone bearing this inscription—PRIMVSTES/ERA—an abbreviation, doubtless, of the words Primus Tesserarius, the designation of a military officer, a centurion, whose duty it was by the authority of a square billet of wood, a sort of tally of which the fellow was kept by the general in command, and which was called a tessera, to communicate his orders in secret to the men of his company.

Pliny records that Palamedes, who fought in the Trojan war, was the first who co-ordinated an army by means of signals, tesseræ, and sentinels.* Livy (d. A.D. 17), speaking of the secret reinforcement of Nero's army, says that a tessera was sent through the camp, ordering that each officer should receive a corresponding officer, each horseman a horseman, and each footsoldier a footsoldier.† And Virgil writes "Now bugles blow; the tessera, the sign for war, goes forth." ‡

Similar billets of wood, with a square transverse section, but perhaps longer than those of military service, and also called tesseræ, were used as tallies in the commercial world. Plautus (d. B.C. 184) shows this when he says "Each of the two men

^{*} Ordinem exercitus, signi dationem, tesseras, vigilias Palamedes invenit Trojano bello. Plin. VII., 56. Dat tessera signum excubiis, positæque vices. Statius (died A.D. 86). Thebaidos 10.17.

[†] Tessera per castra, at Livio consule, data erat, ut tribunus tribunum, centurio centurionem, eques equitem. pedes peditem, acciperet. Liv. XXVII., 46.

[†] Classica jamque sonant; it bello tessera signum. Æn. VII., 637.

has his own tessera, the account is bound to be right—Suum uterque habet tesseram, ratio constat."

In like manner a piece of wood called a tessera was given to departing guests by their host who retained the corresponding tally by which he might know, receive, and entertain them should they, or their successors, ever return. This constituted "the right of hospitality," and when it was transgressed the tessera was said to be broken.*

And Pliny observes that for making tallies, the wood of the Privet is very useful—Ligustra tesseris utilissima (XVI. 18).

The "tessera consularis" was a small oblong piece of ivory or bone, with four faces, each of which bore part of an inscription. This tessera was given to a "Spectator numorum," an examiner of money; and the inscription set forth his name, and the date on which his duty was to be discharged.

Thus: Floronius | Romanus S P Kalendis Decembribus | Lucio Caninio Quinto Fabricio consulibus | —that is, Spectator on the first of December, B.C., 2.

Tickets for corn were made of wood, or sometimes of lead, and were issued to poor citizens—the unemployed, as we should say. They were called tesseræ, as by Juvenal (d. A.D., 120), when he warns a rhetorician to abandon his unremunerative profession, to become an unemployed person, that he may get the pitiful dole of wheat that the miserable tessera procures.† Persius (d. A.D., 24), too, refers to this custom, but he uses the diminutive tesserula perhaps to increase the scorn of his assertion that true liberty was something higher than the

Poenulus V., 2.

Agor. Ego sum ipsus, quem tu quæris.

Poen. Si ita est, tesseram si vis hospitalem eccam attuli.

Agor. Agedum huc ostende. Est par probe : nam habeo domi.
Ib. II., 1.

Cist. Hic apud nos confregisti tesseram.

⁺ Summula ne pereat, qua vilis tessera venit Frumenti,—Sat. VII., 174.



^{*} Plautus (d. B.c. 184).

privilege that any freedman possessed, of claiming mouldy grain on the production of his trumpery ticket, his tesserula.* Tickets or "tesseræ theatrales" were used for giving admission to the games of the circus or amphitheatre, and though usually of wood, they were sometimes of red ware, and were marked or stamped with numbers indicating the position of the seat to which the holder was entitled.

The word was further used to denote the large square patterns sometimes woven into the pallium, for Pliny observes that Zeuxis, a celebrated painter, became so rich and ostentatious that on the very tesseræ, on the square tartans of his cloaks, he had his name embroidered in letters of gold.† But squares or tesseræ of this size were too large to give their name to a chequerboard, and Juvenal uses the diminutive tessella when he exclaims. as proof of his poverty, "I possess not a scrap of ivory; neither my tessellæ, my playing board, nor my men are of this material."‡ We incidentally get some idea of the size connoted by this diminutive, the tessella, since Pliny in his Book on Cultivated trees speaks of grafting and says that a scutcheon of the bark must be remembered, "exempta scutula cortici," of which Cato had described the very dimensions. The scutcheon when taken off by the knife should be four fingers in length [Cato says 3] and three in breadth [or about 3 inches by 2 inches]; § and then, a few lines farther on, in describing a similar process, he uses the word tessella instead of scutula, "exempta cortice tessella."

But he must have thought the word appropriate to small squares, for in his account of the mineral androdamas, he says it

[§] Cortices scalpro excidi quatuor digitorum longitudine et trium latitudine,—Plin. XVII., 16.



^{*} Scabiosum tesserulâ far possidet; Pers.—Sat. V., 74.

[†] Opes quoque tantas acquisivit, ut in ostentatione earum, Olympiæ aureis literis in palliorum tesseris intextum nomen suum ostentarit.—Plin. XXXV., 9.

[†] Adeo nulla uncia nobis
Est eboris, nec tessellæ nec calculus ex hac
Materia. Juv.—Sat. XI., 131.

has a silvery lustre and is always quadrangular like tessellæ,* though, perhaps, it is the shape and not the size that he compares.

No one could have been more familiar with the beautiful Mosaic pavements of Pompeii than was Pliny himself, who perished on the 24th August, in the year of Christ 79, by the volcanic eruption which destroyed that city. He must have seen, for example, in the house of Pansa, the Mosaic of the Battle of Issus, which was composed, when perfect, of 1,384,000 cubes of diverse material, or, on an average, of about 86 in each square inch.

Pliny says: "Pavements were invented by the Greeks, who also practised the art of colouring them, till they were superseded by lithostrota [or mosaics]. In this kind of work Sosus was very celebrated. [He is conjectured to have lived during the last years of Alexander the Great, say B.C. 330.] He laid at Pergamos [a town of Crete] a pavement composed of small tiles and stones, parvis e testulis, variously coloured, tinctisque in varios colores, which represented, amongst other things, a dove drinking from a cantharus and casting the shadow of its head upon the water; whilst others, perched on the edge, were sunning themselves and preening their feathers." Farther on he has: "Lithostrota [mosaic pavements] were first introduced [into Italy] in the time of Sylla [d. B.C. 78], and there still exists at least one of them in the Shrine of Fortune at Præneste, which he had made of very small segments of stone, parvulis crustis."

^{*} Androdamas argenti nitorem habet, quadrata semperque tessellis similis.—Plin. XXXVII., 10.

[†] Pavimenta originem apud Grecos habent, elaborata arte picturæ ratione, donec lithostrota expulere eam. Celeberrimus fuit in hoc genere Sosus qui Pergami statuit [stravit] quem vocant "asaroton œcon" [àσάρωτος οἶκος = the unswept house] quoniam purgamenta cœnæ in pavimento, quæque everri solent, veluti relicta fecerat parvis e testulis [dim. a testa, a tile] tinctisque in varios colores. Mirabilis ibi columba bibens et aquam umbra capitis infuscans. Apricantur aliæ scabentes sese in canthari labro. XXX.

Lithostrota coeptavere jam sub Sylla [B.C. 82] parvulis certe crustis, extat hodieque, quod in Fortunæ delubro Praeneste feoit.—Plin. XXXVI., 25.

Now it is a very curious thing that in the whole of Pliny's account of these mosaics he makes no use of the words tessera, tessella, and tesserula, though he employs the first of them, the familiar word tessera, when he describes how roof pavements should be constructed. He says there must be two layers of boards crossing each other and nailed at the ends, on which must be placed a bed of lime and pounded pot, and upon that large squares, "ex tessera grandi," not less than two fingers thick [1.45in.]. He does not say whether these slabs are to be of stone or of brick.*

The omission of the last word, tesserula, must have been as intentional as that of the others, for he remarks farther on that the Romans soon acquired a taste for mosaic pavements, "as was evident from the verse of Lucilius [d. B.C. 103], who observed that oratory should be

With coloured emblems like a pavement wrought. Arte pavimento atque enblemate vermiculato."

These words are absent from the Fragments of Lucilius that have come down to us, but Cicero had quoted them 170 years before, and rather more fully, thus:

Quam lepide lexeis compostæ? ut tesserulæ omnes
Arte pavimento atque emblemate vermiculato.
All his words as prettily placed as though they were tesserulæ
in a pavement of coloured emblems.†

Here, in the omitted portion of the very passage that Pliny cites, is the very word he seems to require, but, instead of tesserulæ, he deliberately uses the words parvulæ crustæ, very small segments of marble.‡ Perhaps it may be well to remind ourselves here that museum signifies a temple or shrine to the

^{*} Tunc nucleo crasso sex digitos induci et ex tessera grandi non minus alta duos digitos strui.—Plin. XXXVI., 25.

⁺ De oratore, L. III., 43.

[‡] Frequentata vero pavimenta ante Cimbricum [B.C. 101] magna gratia animorum indicio est Lucilianus ille versus, &c.—*Ibid*.

Muses, and that mosaic, opus musivum, a term not used by Pliny, means whatever pertains to the Muses; that is, whatever is artistic or ornamental.

The word tessera was also employed to designate the men of a playing-board. Pliny himself mentions that brought to Rome by Pompey, which was made of two precious stones, three feet by two feet in area. As this table is called alveum lusorium, it looks as if, like a solitaire board, it was provided with holes to receive the tesseræ, which may once have had square heads, but which in later times were made cylindrical, like those now shown. * The Greek word for dice, pipped on all six sides, was kibo, whereas dotpayddos were marked on only four sides. The Latins had the same word cubus, a cube, but they preferred to extend the meaning of tesseræ so as include dice.

Martial (d. A.D. 143), sixty-four years after Pliny, says in an epigram on a gaming-table, "My tesseræ are counted with twice six pips." †

At last, then, the small square facets of the units of a Mosaic were called tesseræ, while, oddly enough, tessellæ continued to denote the larger slabs. A tesserarius was a worker with tesseræ (tesserarum faciendarum artifex), and a tessellarius was a maker of tessellæ (qui tessellas facit), perhaps, much the same thing. Then came the participle of a not-yet-existing verb. Suetonius (who died after A.D. 117), says that Cæsar carried about with him "tessellata et sectilia pavimenta" (Suet. 46).

And ultimately the verb itself arrived, the single example of it occurring in a Catalogue of the Verona Museum compiled by Maffejus in 1749, recording an inscription on a Mosaic, "Eusebia cum suis tessellavit."

^{*} Pompeius transtulit alveum cum tesseris lusorium e gemmis duabus latum pedes tres, longum pedes quatuor, in eo fuit Luna Aurea pondo XXX.—Plin. XXXVII., 2.

⁺ Hic mihi bis seno numeratur tessera puncto. Mart. Epig. XIV., 17.

In writing the above, I have followed the older antiquaries and lexicographers, and have spelled tesselated with one l. Whether they did so because they called the components of a Mosaic tesserve or dice, rather than tessellæ, square plates or slabs, and because having an eye on the mutables r and l, they chose to regard tesselated with one l as equivalent to tesserated, given in Bailey's Dictionary 1727, or as a contraction of tesserulated; or whether the word with one l had somehow become naturalised, I know not. But I will name some works in which the single-l spelling is used without alternative:—

Gibbons' Decline and Fall of the Roman Empire, 1776. Parker's Glossary of Architecture, 1845. Westropp's Handbook of Archæology, 1867. Mollett's Dictionary of Art and Archæology, 1883. Smith's Dictionary of Greek and Roman antiquities, in an article over the signature of James Yates, M.A., F.R.S., 1842.

and, most significant of all,

Skeat's Etymological Dictionary of the English Language, 1882.

And I will point out further that the scholarly translators of classical Latin writers follow the same practice. Thus Pliny's words, "Similiter funt opicata testacea," are rendered by Bostock and Riley. "Wheat-ear [herring-bone] tesselated [one l] pavements are similarly done." And Suetonius's words, already cited, "Tessellata pavimenta," with two l's, are given by Thomson and Forester, his translators, as "tesselated pavements," with one l.

And I venture to remind those pedants who would drive us back to a spelling satirised by Lucilius that, at any rate for them, these cuboids of stone must be no longer tesseræ, but tessellæ; they must say, not this tessera is white or black, but this tessella.

The Material of the Tesseræ.—Sir Robert Edgcumbe reported to Mr. Moule (Dorchester Antiquities, p. 15), on the authority of an Italian workman, that the white tesseræ were of a stone called Min from a quarry near Verona. Another Italian workman told Mr. Moule himself that the stone is called Nim, and comes, of course, from the neighbourhood of Nîmes, in the south of France. These two statements may be regarded as mutually destructive; they cancel out. We may be quite sure that all the stones in our mosaics are of local origin. The last Italian workman that was consulted went, indeed, so far as to admit to Captain Acland that the white tesseræ were of Dorset material. but he declared that they had been burnt to make them white, and that in his country they were called cogoli. This term is not recognised by Italian dictionaries, but I have ascertained that it is a dialect word meaning pebbles or cobbles, with which in the north of Italy country streets and lanes are paved, and that the man who lays them is called cugulu. No doubt cogoli is descended from the Latin calculus, a pebble or gravel-stone, and so, like many of our own dialect words, it has more nearly retained its original form than the corresponding term used by polite persons, which in this case is ciottolo, and the paved road is ciottolato.

I have had microsections made of one of each of the tesseræ, except the brick, and have presented duplicates to the museum. And I am able to affirm that the white tesseræ are of native, unburnt, hard chalk. Chalk does not need to be burnt to make it white, nor would burning harden it. The section shows the delicate foraminiferæ characteristic of that formation, as well as a minute vein of calcite, certainly untouched by heat. It appears that some of the Dorset chalk is so hard as to be classed by Mr. Strahan (Survey of Weymouth, p. 236), among road metals. Mr. Harrison (Geology of the Counties, p. 67), says that in Devonshire the bottom layer of the lower white chalk is largely quarried for building, and, though soft when extracted, it rapidly hardens on exposure to the air. In the neighbourhood of Cattistock, and even in Dorchester, many houses are built of

squared blocks of chalk, and, though some of them are more than 200 years old, the face of the chalk is little the worse. They are shown in this photograph, and here is a lump of hard chalk that has been used as a door stopper, and has been kicked about every day and all day on a floor of Portland Cement for seven years, and it has proved for itself that it would make durable cubes for any mosaic. The yellow tesseræ are of ordinary oolite, the egg-structure coming out well, under the microscope. The blue-grey is a stratified limestone, and answers to like-coloured bands of Lower Purbeck; indeed, Mr. Osmond Fisher believes he can see in it traces of cyprides, the characteristic fresh-water fossil. And the black is a non-fossiliferous marble stained by ferruginous percolation. Its affinity is to the limestones of Devonshire.

The Fret.—This term is from the old French frete, trellis-work, and denotes a pattern composed of continuous combinations of straight lines. When they interlace they form a rectilinear intreccio.

The Meander fret.—The meander in its origin was, of course, a curvilinear decoration, but in wood-carving, taking lines of least resistance, it passed by degrees into a fret, into a running rectilinear device. All zigzags that do not cross each other are meanders, even those complicated zigzags called key-patterns. In the example before us it surmounts the cruciform floriated centre, and is so arranged as to produce an emissive or radiant effect.

Interlaced Designs.—The chief intrecci of this Mosaic are the Cable, the Braid which is of three strands, and the Guilloche. As regards the two former, the points of their intersections are made more evident to the eye by means of light-coloured centerings, but they are, none the less braids and cables.

The term Guilloche has been variously defined. Some say that it is any twisted ornament which repeats itself by its returning strands; and others call it the tool by which such an ornament can be made, because the French verb guillocher is "to engine-turn," and is derived from the man's name who

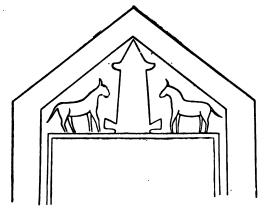
invented the appropriate machine. But whereas Brachet, of the Ecole Polytechnique, Paris, in his Etymological Dictionary of the French Language, 1868, says that Guilloche was the inventor's name, Ménage, the author of the First French Etymological Dictionary, 1650, says that the man's name was Guillot; while, to make matters more difficult still, we find a somewhat similar word in the English of 1663, "the fret has in the bottome, a dubble golose."

No doubt either the cable or the braid decoration may be called quite correctly a guilloche, but the former terms are themselves sufficiently descriptive, whereas we lack one to designate the peculiar looped "snare-work;" of which we have here such a good illustration. It is a pity that we have lost the English word golose, but we shall do well to follow the example of those who restrict the French term guilloche to this otherwise nameless design.

The Fylfot.—That the makers and admirers of these mosaics saw and understood this device in the Fylfot fret I have already proved from the Brading pavement, in which the symbol is cut off from its surroundings and occupies a place of honour. To this evidence I now add an empanelled Fylfot from Basildon, Berks, in which its precise form is emphasised.

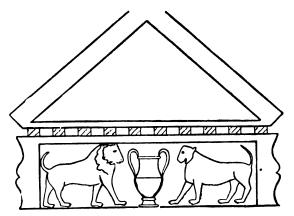
The Duplex.—I show again a few diagrams which were part of the proof that the Duplex was once a sign of the twofold course of the sun, and afterwards became a symbol of the double nature of Christ. It usually assumes the form of a crux decussata, the cross of S. Andrew, the Protoclete, the First-called, who had exclaimed "We have found the Christ" (John I., 41).

Amphoræ.—When Pliny uses the word amphora (XXXVII., 2), it is to denote a liquid measure of 48 sextarii or nearly six gallons (5 gal., 7.577 pints). And the vase in the Mosaic at Pergamus, on which doves were perched, he calls a cantharus. This group became a favourite motif in art. It is conspicuous in the pavement of Hadrian's Villa at Tivoli. It occurs at Verona, in a Roman Mosaic that lies beneath the cloisters of the



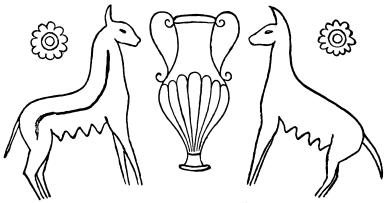
I.—MASCULINE OR SOLAR SYMBOL OF FECUNDITY.

Phrygian Tomb.



II.—MATERNAL OR TERRESTRIAL SYMBOL OF FECUNDITY.

Phrygian Tomb.



III.—FEMININE SYMBOL OF FECUNDITY.

Elruscan Sarcophagus.

cathedral. It was, doubtless, the ancestor of what may be seen on the walls of Christian catacombs, and in the tesselated floor of S. Orso at Ravenna, where the cantharus has become a chalice, and the doves on its rim are not votaries of Venus, but ransomed souls.

The cantharus, however, was a drinking-vessel, a tankard, sacred to Bacchus, usually but not always with two handles, and rarely if ever made of earthenware. Silenus, sleeping off his debauch, is found with a heavy cantharus hanging by a worn handle. Et gravis attrita pendebat cantherus ansâ pendebat cantharus ansâ. (Virgil, Ecl. VI., 17.)

Hence it is better for us to use the less restricted term amphora, a word contracted from ἀμφιφοφεύς "having two handles." Such a vessel in the Olga Road tesselation I have called a symbol of Fecundity. Perhaps all statements of that kind should be accompanied by proof. Omitted then, I supply it now. On the façade of the very ancient stone tombs of Phrygia it is common to find sculptured in relief two animals facing each other, like heraldic supporters, which are sphinxes, lions, or bulls, and between them is a symbol which is always in one or other of three forms—a pillar, a phallus, or an amphora (see figures I. and II.).

The animals are the guardians of the symbol. The requirements of art, as well as the limitations of sculpture in relief, make them indeed look towards the symbol rather than towards any approaching adversary. But they are no more about to eat of the pillar than to drink from the vase. "It is a double-handled vessel," say Messieurs Perrot and Chipiez, "of simple and elegant design, and there are numbers in our museums labelled Italo-Graco, whose contour is precisely similar" (Art in Phrygia, p. 130). Can we doubt that it represents Fecundity in its feminine aspect, as our Mother the Earth, or that the pillar represents Fecundity in its masculine aspect, as our Father the Sun. But Fecundity means Life, and therefore necessarily, in some sort, the Renewal of Life. And we may be sure that underlying this presentment, this guarding of the symbol, was the

positive belief of those who saw it that one day some god, Mithras or another, would crash through the portals of the tomb, would sweep its gloomy caverns with celestial air, would set the captive souls free and bring them back to warmth and light. Such was their creed; and who are we to say they were wrong?

Etruscan Amphoræ.—Etruria or Tyrrhenia extended from the river Macra on the north to the Tiber on the south, and lay between the western or Tvrrhenian sea and the Apennines. The primitive culture of its inhabitants was a branch of the general civilization of the European Bronze Age. The Etruscan Museums of Italy are full of objects taken from tombs. Amongst the vases there found are a great many that certainly had been brought from Greece, and many, too, that had been made in Tyrrhenian colonies of Greek artists. This only shows the good taste of their employers, and indicates, of course, a strong foreign influence upon domestic ceramics. On vases made by Etruscans, the inscriptions are in their own language and alphabet, and illustrate their own mythology. In tone, drawing, and art they differ strongly from anything that has been discovered in Greece. The amphora called Tyrrhenian, though its general form is both ancient and widely diffused, differs from the Greek and Roman in having a thicker body, and a wider mouth. But gadrooning does not appear in the earlier stages of its evolution.

In looking through my notes of a visit paid, during September, 1901, to the Etruscan Museum at Verona, I have found the rough sketch of a bas-relief on a sepulchral chest of limestone said not to be later than the 2nd century B.C. The sculpture shows a gadrooned amphora, supported in Phrygian manner, and no doubt with Phrygian significance, by two horned quadrupeds, each in association with a solar rosette. A local feature makes this group even more remarkable. Each animal possesses four udders which extend in a row, from front to back, along the whole ventral surface (see figure III.). We are at once reminded of the Etruscan Wolf, which usually has six

udders, and which sometimes, but not always, suckles a boy. Much later, two boys appear, Romulus and Remus.

On this subject Pliny acutely observes that cases of infants suckled by beasts should be attributed rather to the greatness of the fate that must be fulfilled, than to the nature of the animals themselves.*

It was the multiple breast, the πολυμαστός, that proclaimed Diana of Ephesus to be the nutrient Mother of many nations, whilst the udders of Etruscan animals, of the Wolf of the Lupercal, were big with the destinies of a mighty People.

Christian Serpents.—Two serpents issue from each of two of the four vases in the Durngate Street mosaic. This has led a friend of ours to a belief that the pavement must receive a Christian interpretation. He sees in it an allusion to St. John (December 27th), Apostle, Prophet, and Evangelist. In some late representations of the Saint he is made to bear in his hand a cantharus or sacramental cup, from which a serpent appears to be escaping. A legend relates that an attempt was made to poison St. John in the chalice. But he drank of the wine and administered it to the communicants with injury to no one, for the venom had gone out from the cup in the guise of a serpent. In art the Italian School, as by Raphael (d. 1520), depict for us the egress of an ordinary snake, whereas the Flemish School, as by Hans Memling (d. 1494), often miscalled Hemling, show us a winged dragon. [Captain Acland has a good example of each.] The frequent occurrence, in Christian legend, of serpents in association with saints is assuredly an indication of Pagan influence. During the flight into Egypt, when the Holy Child lay in the wilderness, dragons came and worshipped at His feet; and the Blessed Virgin often places one foot on a serpent's head. Against the bites of such reptiles the relics of Phocas, martyred in Syria, are highly efficacious. St. Hilarion

^{*} Nam quae de infantibus ferarum lacte nutricis, cum essent expositi, produntur sicut de conditoribus nostris a lupa, magnitudini fatorum accepta ferri aequius, quam ferarum naturæ, arbitror.—Plin. VIII., 17.



(October 21st) freed the Dalmatian district of Epidaurus from a serpent which was devouring men and cattle. A snake is an attribute of Thecla (September 23rd), virgin and martyr, who escaped unharmed from a worm-pit; of St. Cecilia (November 22nd, 280); of St. Patrick (March 17th), whose antipathy to snakes is well known; of Poternus (April 16th), or Padarn, or Madron, saint and bishop, whose monastery was at Vannes in the VI. century; and of the Gaulish Pirminius (November 3rd), saint and bishop, who died in the VIII. century.

Didymus (April 28th), a blind saint, treads upon a serpent, while St. Margaret (July 20th, 275) treads upon a dragon, and St. Martha (July 29th) at Tarascon, no less than St. George (April 23rd) at Selene, destroys one. In the fifth century Cairnech (May 16th), or Karentocus, a Cornish saint, tamed a serpent on the banks of the Severn. But all these devout persons have only one snake a-piece, whereas St. Euphemia (September 16th, 307) stands between two serpents, as does also, at Florence, St. Verdiana (February 1st). Here, then, is the opportunity for anyone so disposed—one of these virgins for each vase.

Pagan Serpents.—Although in Christian art and legend this reptile serves as a symbol, if not indeed as an incarnation, of evil, the serpent was looked upon by Pagans as a protector of the person, as a guardian of curative waters, as "umbrarum famulus," a servant of the dead, and as a "genius loci."

Whilst visiting the island of Chryse, on his way to join the Trojan army, of which he was the most celebrated archer, Philoctetes took the Greeks to see the altar of Athena Chryse, and having approached too near, was bitten by the serpent which guarded the temple of the goddess.

The serpent that Æneas saw, as he poured out a libation and scattered flowers at his father's tomb, had blue dorsal bands, "cœruleæ cui terga notæ," and scales of burnished gold, "Maculosus et auro squamam incendebat fulgor;" and he was in doubt whether it was the genius of the place, or in truth his father's attendant. (Incertus geniumne loci, famulumne parentis Esse putet. Æn. V., 76-95.)

Many Trojan shields have serpents that seem to issue from the boss. Sometimes the buckler, or the helmet, of Hector is adorned with a snake to show that he was protected by Apollo, and a snake was an attribute of Apollo himself, as well as of Minerva in her chatacter of Hygieia.

Æsculapius frequently appeared in the shape of a serpent, and with serpents his worship was everywhere associated, for they were able to discover healing herbs, and were the symbols alike of prudence and of renovation; and he is often represented with one hand resting on a serpent's head.

To protect an edifice from defilement, a satirist suggested that two serpents might be painted on the wall. (*Pinge duos angues -locus est sacer, &c.* Persius, Sat. I., 113.)

A serpent on the sacred tree in the Garden of the Hesperides protected the apples which were filched from it by guile. Those persons who fancy that the Hebrew story of the Fall is an allegory, may choose to imagine an earlier legend in which the Tree of Knowledge of Good and Evil was guarded in like manner, whilst the woman, in like manner, got possession of the fruit by deceiving the reptile.

The cobra of ancient Egypt was a serpent of goodness, and was adored as a protector of grain.

It is known that in the fourth century, B.C., the Gauls in the north of Italy, in Gallia Cisalpina, had a cult of the serpent. This the Druids inherited, and throughout Gallia Ulterior serpent symbols have often been discovered.

Naturalists tell us that on irritating the cobra it immediately erects the forepart of its body, swells its neck, opens its jaws, extends its forked tongue, its eyes glitter, and it begins to hiss. Where one is another may surely be found, for they are always in pairs. And they can be inveigled into pots. (Figuier, Reptiles, pp. 71-74.)

Somewhere, I think in one of the Etruscan Museums of Italy, I have seen a vase with twin snakes like that before us, but it is not down in my notebook. Nevertheless, I am able to quote from Dennis (Cities and Cemeteries of Etruria I., 169), an account

of the Grotta Dipinta, an Etruscan tomb near Bomarzo, 12 miles east of Viterbo. "Drawn on the wall in red and black pigments is a large jar out of which two serpents with forked tongues are rising. In the same tomb was contained the sarcophagus now in the British Museum, of temple shape, with a pair of serpents in knotted coils on the roof"; and the writer suggests that it was the sepulchre of an augur.

We are not, however, compelled to believe that the Durngate Street pavement lay in the house of a priest. If we witness the outburst of flowers, the egress of serpents from an amphora, we see auspicious tokens of springtide, of summer, of solar heat and terrestrial response.

Asymmetry.—Symmetry, as understood and practised by the ancient Egyptians and by the first Greeks, was drawing by absolute rule and measure, making all things commensurate to a fixed scale. Decoration was done by stencilling, and the human stature was divided into a number of equal parts say, into 19, of which the head occupied 3, the trunk 7, and the lower limbs 9. This made profile necessary, and foreshortening was impossible.

Revolt against rigid form began early. Pliny remarked that the Latin language had no name for that kind of symmetry which Lycippus (B.C. 330) observed in his new and untried method of modifying the squareness of the ancient statues; and that it was a common saying of his that, while others made men as they were, he made them as they appeared to be.* That is to say, he did not care for their measuring right as long as they looked right.

A careful examination of the best of the old Mosaics will reveal to us a constant effort to escape from strict geometrical form. Their design was in the artist's mind, and was not copied from a pattern prepared at an architect's office.

^{*} Non habet Latinum nomen symmetria, quam diligentissime custodivit, nova intactaque ratione quadratas veterum staturas permatando: vulgoque dicebat, ab illıs factos quales essent, homines, a se quales viderentur esse.—Plin. XXXIV., 7.



Their charm is that possessed by hand-made oriental rugs, with varying borders and details, as contrasted with the lifeless fabrics woven by modern looms. So much better is the free-hand "snare-work" of Roman pavements than the engineturned scrolls of to-day.

On the continent, in the middle ages, a like revolt may be discerned against symmetrically exact architecture, and the proof of it would be an interesting subject for this Club, on a future occasion, to discuss. Time permits only a moment's reference to the ancient wavside crosses of Cornwall, the roundheaded monoliths of the VIII. Century, as an illustration of this theme. Of these monuments the head is never geometrically circular, and it is not placed evenly or symmetrically on the shaft which possesses a delicate entasis, narrowing that is from the mid height, but more so above than below. This alone proves careful and thoughtful workmanship. Its incised Latin cross is usually curved; the upper and lateral limbs are unequal, and the interspaces vary in size. Such a cross I have drawn from a photograph, here shown, and have placed beside it one made by rule and compass, that the emotional or artistic may be compared with the geometrical or dead.

Symbolism, Art, and Beauty.—And now, to avoid too much idiocracy, let me conclude in the words of a modern writer:—
"That vague dreams of the deeper mind can be awakened by the contemplation of symbols is true of all those who are sensitive to the influences of the spirit. What one needs in Art is not that things should be perfectly seen and accurately presented. A picture of hard fidelity is often entirely displeasing, but one craves for a certain sense of personality—something that seizes tyrannously upon the soul, and makes one desire more of the intangible and indescribable essence. Blake announced that a man's hope of immortality depended not upon virtuous conduct, but upon spiritual perception. And it is hard to resist the belief, when one is brought into the presence of perfect beauty, in whatever form it may come, that the craving it arouses is meant to receive a satisfaction more real than the act of mere

contemplation can give. Such emotions bring with them no suggestion of primal and degrading instincts, no desire of possession, which is the sign of mortality, but rather the divine desire to be possessed by them—that the reality, whatever it be, of which beauty is only the form, may enter and remain in the soul."





Report on First Appearances of Birds, Insects, &c., and the First Flowering of Flants

IN DORSET DURING 1905.

By NELSON M. RICHARDSON, B.A.

THE names of those who have this year sent in returns are as follows; they are denoted in the Report by initials:—

(N. M. R.) Nelson M. Richardson, Montevideo, near Weymouth.

(E. R. B.) Eustace R. Bankes, Norden, Corfe Castle.

(E. S. R.) E. S. Rodd, Chardstock House, Chard.

(W. H. D.) Rev. W. Hughes D'Aeth, Buckhorn Weston Rectory, Wincanton.

(J. R.) Rev. J. Ridley, Pulham Rectory.

(E. E. W.) Miss Ellen E. Woodhouse, Chilmore, Ansty, Dorchester. (Parish of Hilton.)

(G. R. P.) Gerald R. Peck, Darenth, Parkstone.

Miss Woodhouse and Mr. Peck are new observers, and represent new districts.

I have received the following

Notes on Rare and other Birds in 1905.

Woodchat (Lanius auriculatus, Müller).—This rare visitor to Britain having been very seldom observed in Dorset, I should like—on the principle of "Better late than never"—to place on record the fact that about the year 1894, either in April or May, I watched for some minutes at only a few yards distance a fine specimen at Corfe Castle a little further down the same stream, beside which the late Rev. Owen L. Mansel saw one on April 21, 1893, as recorded by myself at the time in the Dorset County Chronicle and in Proc. Dors. N.H. and A.F.C., XV., 196. Unfortunately, I have searched in vain for a note of the date, so can only give it approximately (E. R. B.).

PIED FLYCATCHER (Muscicapa atricapilla, L.).—I saw one at Symondsbury Rectory on April 27 and 28 at the same spot. This bird is extremely rare in the locality, and I have never previously observed it. It was very tame, and allowed me to approach to within a few yards of it (Rev. R. C. Maunsell).

Thrush (Turdus musicus, L.).—A well-fledged young one, able to fly about 40 yards at one flight, was met with on April 14—a remarkably early date (E. R. B.).

On April 30 my attention was attracted by the angry screams of a thrush, and I saw a jackdaw make two dashes at a young thrush sitting on a bough. It failed each time, and was driven off to a considerable distance by the old bird (J. R.).

ROBIN (*Erithacus rubecula*, L.).—I have heard that robins are never seen to bathe like other birds. Not long ago I saw one in the act of taking a bath in a pool (J. R.).

Robins bathe at least as much as other birds in a large dish on my lawn (N. M. R.).

REDSTART (Ruticilla phænicurus, L.).—Seen at Corfe Castle April 11 (E. R. B.). At Chickerell, where it is usually rare, April 4 (N. M. R.).

NUTHATCH (Sitta cæsia, Meyer).—A pair with young feeding in an elm tree (J. R., Pulham).

ROOK (Corvus frugilegus, L.).—Several nests with young blown down on the night of May 1. I believe that one nest was rebuilt and another brood reared, for the last of the young rooks took flight on June 8 (J. R.). (Morris gives the date at which the young are fledged as the end of May or the beginning of June) (N. M. R.).

House Martin (*Chelidon urbica*, L.).—Seen at Wareham on April 20 (E. R. B.).

CUCKOO (Cuculus canorus, L.).—About the beginning of August a young cuckoo came close to the windows to be fed by a pair of wagtails, and very often shared the crumbs spread regularly for birds—an unusual diet! (J. R.).

KINGFISHER (Alcedo ispida, L.).—One dashed against a large window. I believe it mistook the gleam on it and the reflected foliage for water (J. R.).

GREEN WOODPECKER (Gecinus viridis, L.).—Heard "laughing" on February 6 (E. R. B.).

LESSER SPOTTED WOODPECKER (*Dendrocopus minor*, L.).—Seen on February 8, and frequently seen and heard since (J. R.).

This can hardly be called a rare bird in this locality; I have seen it here on many occasions and several times this spring (Rev. R. C. Maunsell, Symondsbury Rectory).

WOODPIGEON (Columba palumbus, L.).—Heard cooing on January 25 and following days (E. R. B.).

AVOCET (Recurvirostra avocetta, L.)—One was killed at Seaton this autumn (E. S. R.).

WOODCOCK (Scolopax rusticula, L.).—A nest was found in the spring at Bere Regis by Major Palmes, who resides there (E. R. B.).

LITTLE GULL (Larus minutus, Pallas).—In Poole Harbour January 17 (G. R. P.).

BUFFON'S SKUA (Lestris Buffonii, Boie).—During the summer I saw an adult Buffon's Skua near the breakwater on S. Haven Point, Studland Bay, but omitted to record the date (G. R. P.) This species is not included in Mansel-Pleydell's "Birds of Dorsetshire," and appears to be new to the county (N. M. R.).

SQUACCO HERON (Ardea ralloides, Scop.).—A specimen of this extremely rare species was recorded by Mrs. J. L. (recte "E.") Panton in the Dorset County Chronicle of January 26, 1905, as having been seen by her in the garden at Steeple Rectory, in the Isle of Purbeck, on January 17, 1905, after a severe and prolonged S.E. gale. Only four occurrences of this scarce visitant are chronicled in "The Birds of Dorsetshire" (1888), while a fifth example was shot at Bere Regis by Mr. G. Toser in the winter of 1891-2 (teste Rev. O. P. Cambridge, F.R.S.). Nearly all the specimens observed in Britain have been met with either in spring or summer, and have been in immature plumage (E. R. B.).

COMMON BITTERN (Botaurus stellaris, L).—Two examples of this now rare visitor were shot at Wareham about the end of January, but the names of the gunners, who erred through ignorance, have been withheld from me on the discovery that the bird is protected by law (E. R. B.).

Rev. J. Ridley contributes two notes on birds in Devon.

I heard the nightingale in S. Devon on April 11, and listened to it for nearly a quarter of an hour. Only of late years has it been certainly heard in this county.

I also heard and saw a pair of ravens in Devon on April 7.

GENERAL ZOOLOGICAL NOTES.

BAT flying round the lawn in the sunshine on February 24 (N. M. R.).

BLINDWORM found with young in log of wood on September 16 (J. R.).

SMALL RED VIPER.—A beautiful specimen of this small and very local species (*Vipera rubra*, Leighton), was captured at Corfe Castle by my brother, Mr. Arthur E. Bankes, on May 18, 1905. So far as I can ascertain, this interesting viper had not been previously met with in the Isle of Purbeck, though it has occasionally been observed elsewhere in Dorset, as recorded on p. 210 of Dr. Gerald R. Leighton's "Life History of British

Serpents," in which work (pp. 206-213) the author gives his reasons for considering the Small Red Viper specifically distinct from the adder (E. R. B.).

PLAGUE OF GOOSEBERRY SAWFLY.—In spite of the prodigious numbers of this Sawfly (Nematus grossulariæ) that were collected, in the egg and larval states, on my gooseberry and currant bushes in the preceding year, and destroyed (see Proc. Dors. N.H. and A.F.C., XXVI., 269), we suffered from an equally severe plague of it on the same bushes in 1905. Eggs and larvæ were again continually collected by the thousand throughout May, June, July, and August in an attempt, fortunately successful, to save the crops of fruit, and in the hope that determined annual onslaughts on this destructive pest would end either in its extermination, or at least in its being reduced almost to the vanishing point (E. R. B.).

HUMBLE BEE seen March 29 (N. M. R.).

SCARCITY OF LEPIDOPTERA.—In spite of the weather conditions being eminently suitable for insect-collecting, the year 1905 proved, in the Isle of Purbeck and neighbouring disappointing regards both district, very as Macroand Micro-Lepidoptera, which were, in general, decidedly scarce, nearly all the better-class species that were especially worked for being either not met with at all, or only found in solitary individuals. On the whole, however, the season yielded rather better results than its predecessor, though this, alas! is but faint praise, and it is clear that, even under favourable conditions, it will be several years before Lepidoptera have recovered from the effects of the wholesale destruction caused in their ranks by the disastrous weather of 1903. But, however bad the season, some few species are sure to appear in unwonted numbers, and many valuable observations may be made. Fortune by no means entirely deserted me in 1905, and my captures included several of peculiar interest, which either have been, or will be, chronicled elsewhere; the most noteworthy of these was that of a lovely male example, taken whilst I was out partridge-shooting near Corfe Castle on September 6, of Sterrha

sacraria, L., which is extremely rare in Britain, and of which only three specimens had previously been taken in Dorset.

BOTANICAL NOTES.

RARE FUNGUS.—A beautiful crimson-red Fungus, growing in late winter and early spring on damp rotting sticks partly buried in earth, that I have found very sparingly in one spot near Corfe Castle for many years past, has been identified by my friend, Mr. G. F. Rayner, of Southampton, as Geopyxis (Peziza) coccinea, an extremely local and uncommon species not as yet discovered in either the New Forest or Southampton districts. Within the last year or two I have met with it, though rarely, in two other spots near Corfe Castle, and have ascertained that it occurs in one in the adjoining parish of Kingston. to obtain specimens for Mr. Rayner, I visited my original locality for this Fungus on February 16, 1905, and in one hedgerow, under 200 vards in length, had the good fortune by close searching amongst the mass of dead leaves, &c., which rendered most of them quite invisible to the passer-by, to discover about 100 examples, of which some 30 or more were left for stock, in but little over half-an-hour. I doubt if I had ever previously met with more than ten or twelve in a single day, though that same fence had often been tried for them. remarkable find, doubtless due to specially suitable conditions as the result of the sallow hedge not having been laid for several years, included individuals of all ages and sizes, some being far larger than any previously observed; several were 11 inches across the top, but, amongst others subsequently found in the sand hedgerow, two, although partly eaten, measured respectively 2 and 2 7-16 inches in length of "cup," that of the latter being 13 inches in breadth. G. coccinea is not included in Mr. C. Broome's "List of Fungi collected in Purbeck," published in the Purbeck Society Papers, pp. 252-261 (1858), nor do I know of it having been recorded from any part of the county of Dorset (E. R. B.).

SALIX CINEREA.—A few male catkins were found on one bush at Corfe Castle on January 30, and some female catkins were fully out on a bush in another locality on the same date (E. R. B.).

ELECAMPANE in flower at Pulham July 22 (J. R.).

DAPHNE LAUREOLA in flower at Pulham February 7 (J. R.).

PRIMROSES.—I never saw such quantities of early primroses. At Christmas, 1904, we gathered bunches in woods near Pulham for decoration (J. R.).

Notes on Weather, &c.

BUCKHORN WESTON.—The year has been remarkable for the absence of thunderstorms. We only had one here, and that not very near (W. H. D.).

PULHAM.—March 7: Some lightning with very heavy gusts of wind. March 11: Towards evening very heavy storm of wind, rain, and hail, with a little thunder and lightning. March 14: Heavy thunderstorm about 9 to 10 p.m. and rumbling most of the night. June 14: Distant thunder. July 9: Distant thunder. August 1, 5, 15, 29: A little thunder. November 3: Thunderstorm for about two hours, but not very near.

BUCKHORN WESTON.—Exceedingly small rainfall—5 inches below our lowest record for 14 years (W. H. D.).

CHARD.—Wonderfully mild and dry during January and February. October 18: Lovely autumn weather prevails with sharp frosts at night. Great scarcity and shortness of water generally in England from the small rainfall during the year 1905. Springs very low everywhere, but enough rain has fallen during spring, summer, and autumn for the crops, both roots and grass; and it has been a very good year for farmers generally. A very sharp snap of frost in October and November for a few days. The year ended with mild dry open weather (E. S. R.).

266 FIRST APPEARANCES OF BIRDS, INSECTS, ETC.

PULHAM.—Frosts on nights of May 22 and 23. Very cold on June 5, 6, 7, and 11. Frosts October 16 to 26, sometimes 8 to 10 degrees. About 1 inch of snow on the night of November 18 and a little on November 19.

AURORA BOREALIS on January 26 (frosty, very fine sunset), and a fine display on November 9. The eclipse of the sun of August 30 was seen quite clearly with the exception of fleecy cloud now and then (J. R.).

The Tables of First Appearances, &c., are appended .-

				Dorset.		N. M. B. Weymouth.		E. R. B. Corfe Castle.	B.	E. S. R. Chard.	نې نه	W. H. D. Buckhorn Weston.	č ř ž	J. R. Pulham.		E. E. W Hilton.	ĕ ≅
Wood Anemone Lesser Celandine		::	::	Mar. Jan.	7-81	Mar. Feb.	62.7	Mar. Feb.	r- 20	Mar. Feb.	# 11	Mar. Jan.	82	Feb.	-	Mar. Feb.	22.0
Marsh Marigold	•	:	i a	Mar.	∞ §	:		Mar	8	Mar	8	Mar	8	:		Mar.	œ Ş
Dog Violet	•	•	; :	Jan.	នន	: :		Mar.	128	: 	1	Mar.	800	Mar.	នេ	Jan.	នេះ
Greater Stitchwort.		::	::	Ap.	13.22	May	93	Mar. Ap.	នន	. :		Mar. Ap.	5 S	: :		Mar. Ap.	2
Horse Chestnut .	•	:	<u>-</u> ,-	Mar.	8 -		•	:		νb.	*	Mar.	8	Mow:		Mar.	8-
Bush Vetch	•	:	:	Mar.	183	:	•	: :		: :		Mar.	-83	•	•	Ap.	12
Blackthorn	•	•	4 2	Mar.	- 6	Mar	2	Mar.		∀ b:	∞	Mar.				Mar. Mar.	812
Hawthorn	•	:	ا نا 	Mar.	55.			Mar.	71	May.	15	May	5	Mar.	9:	Mar.	2:
Ivy	•	:	: :	Sep.	ខេះ	Sep.	, 8 8	:	•	:	}	Sep.	ន			i O	:-
Dogwood	•	:	<u>ئا</u> ئار	Ap.	٥ و	::		: :		June	88	June	15	::		Ap. June	2 2
Elder		:	1	Feb.	4.	: :			;	Ap.	9	: 5	8	: :		Feb.	7
Wild Teasel	•	:	: :	July	19	inay:	•	: :	=	: :		July	19		 8	July	ខ្ល
Devil's bic		:	:	July	8	:	:	:	_	:		Aug.	-	:		July	8
Knapweed	•	:	: =	June	21 r	June	1	:		: :		Mar	27	:		June	2
Field Thistle	•	:	i a:	May	3	: :		July	တ	: :		June	- 83	:		May	81
Coltsfoot	•	:	<i>,</i> :	Feb.	2	:		Feb.	22	:		Feb.	S	:		Feb.	ង
Dr.ove Deim	•	:	:	June	នះ	July	90 3	July	برة بريا الم	:		June Kon	3 2	1	_	June	8
Mouse-ear Hawkweed	. 7	: :	: :	May	3,7	May	8	May	3,2	: :		May	2 21		.	May	2 2
Harebell		: :	: :	July	0	: :		July	. 0	: :		:	1	: :		July	S
Greater Bindweed	•	:	:	July	- ;	July	_	; :		:		July	01 :				;
Water Mint	•	:	:	Suly Suly	3-	:	_	:	8	:		Aug.	٦ ٢	:		Yall Yall	3-
Wych Klm	•	:	:	Mar.	-	Mar	ıc	Mar.	3	:		.6	3	:		Mar.	
Fernale	Flower	::: (SLE)	: :	Jan.	1,	Feb.	. 40	Feb.	c	: :		Jan.	18	Feb.		Jan.	1
Cowalip Spotted Orobic	•	:	:	Mar.	٦ 8	νb.	٦8	Mar.	31	Mar.	18	Mar.	٥٠ ٥	Mar.	<u>.</u>	Mar.	٦,
Special Crimin	•	:	: #	Mar	38	: •	3	:		:			5	Mar	g	rate)	ī
Bluebell	•	:	: : ~	Į,	3 5	:	•		ŧ	:	•		8	•			8

(2) No wych elm in Buckhorn Weston Parish (W. H. D.). B. Bud. L. First leaf. P. First flower. (1) Hawthorn last in flower June 25 (K. S. R.). * Has been out some time.

FIRST APPEARANCES OF BIRDS IN DORSET IN 1905.

					Dorset.	N. M. R. Weymouth.	E. R. B. Corfe Castle.	E. S. R. Chard.	W. H. D. Buckhorn Weston.	J. R. Pulham.	E. E. W. Hilton.	G. R. P. Parkstone.
Flycatcher Fieldfare	::	::	::	: : e: ×	May 8 No record. Jan. 21 Mar. 18	May 8	: ::	: ::	May 24	 Mar. 20	June 11 Jan. 21 Mar. 18	
Redwing	: : :	: : :	: : :	<u>.</u>	Mar. 20 No record. Ap. 23	 May 11	Ap. 28	. :	Mar. 25			Ap. 2
Wheatear Willow Wren	::	:::	: : :	i : *	Mar. 25 Ap. 11	::::	Ap. 12 Ap. 11	::::	(3) Ap. 18	or : :	Ap. 13	Mar. 25
Chiff-chaff Whitethroat Skylark	::	: :	::	. si : s	Mar. 25 Mar. 27 Feb. 30	Mar. 22 (9) Mar. 27 Mar. 27	Mar. 26 Ap. 21	April	Ap. 5 Ap. 10	. G	:	
Rook Cuckoo (8)	:::	:::	:::	i z e i	Feb. 3		Ap. : 21 (1)	Ap. 14		Feb. 12 (6) Ap. 14 (7) Aug. 10	Ap.	Ар. 30
Swallow Sandmartin Swift	:::	: : :	: : :	<u></u>	Nov. 25 Mar. 26 May 6 Sep. 13	Nov. 5 May 13 Aug. 2	Ap. 24 (2) May 10	q . : : : : ₹	Nov. 25 Nov. 25 (3) May 12 Aug. 15		: : : d	
Nightjar Turtle Dove Woodcock Corncrake	: ::::	: ::::	: ::::	் ப் க் : க்	May 14 Sep. 16 May 7 May 12 No record. Ap. 24	Wav X	May 19 May 19	May 12		A P. 24	::::	May 14 Sep. 16 May 7

(1) Cuckoo not heard again till April 26. Came to stay on April 27. Seen near Wareham on April 18 (E. R. B.). (2) Sandmartin seen near Wareham on April 16 (E. R. B.). (3) Sandmartin never seen (W. H. D.). (4) Nightjar not seen or heard this year; very uncommon (W. H. D.). (5) Five aggrs of Chifferchaff May 31 (J. R.). (6) Yeung Rooks heard April 4 (J. R.). (7) June 23, young Cuckoo in Wagtail's nest. In the heginning of August a young Cuckoo came daily to be fed by Wagtaills, and left August 10 (J. R.). (8) Cuckoo heard at Symondsbury, Bridport, April 27 (Rev. R. C. Maunsell). (9) Chiff-chaffs have been commoner than I ever saw them (N. M. R.).

s. Song first heard. N. Nesting. P. First egg. L. Last heard or seen.

FIRST APPEARANCES OF INSECTS, &C., IN DORSET IN 1905.

	Dorset	N. M. B. Weymouth.	E. R. B. Corfe Castle.	E. S. B.	W. H. D. Buckhorn Weston.	J. R. Pulham.	E. E. W. Hilton.
Rose Beetle	No record. May 24 May 27 No record.	::	::	::	May 27	May 24	
Glow-worm Common Hive Bee (h)	May 30 Feb. 5 Mar. 27	Feb. 17 (1) Mar. 27	May 30 Feb. 5 May 5 (3)	(1a)	Ap. : 21	Feb. 14 May 9	Mar. 19
Large white Butterfly Conjugate the Butterfly Orange-tip Butterfly Meadow brown Butterfly	Mar. 19 May 5 June 15	May 9 17 June 17	Ap. 22 May 28 (7) June 18 (7)	::::	May 5 May 5 June 18	May. 20	Mar. 19
Wall Butterfly Brimstone (h) Puinted Lady (h)	May 20 Mar. 18 May 30	May 22 May 30 (2)	883 6	Mar. 20	-	Mar. 31	Mar. 19
Currant Moth	May 26 July 14 May 7 Feb. 5		May 28 (6) (7) July 21 May 7	Feb. 5	July 14		

(1) Hive Bees seen up to Dec. 28 very lively at ivy blossom (N. M. R.). (1a) Hive Bees gathering honey Oct. 18 (E. S. R.). and September (R. R. B.). (4) Fresh specimen of Painted Lady July 20; very few seen (E. R. B.). (5) Fresh specimen of Brinstone Aug. 6 (R. R. B.). (6) Fresh specimen of Brinstone Aug. 6 (R. R. B.). (6) Climubar exceptionally abundant both in the moth and subsequently in the caterpillar states (K. R. B.). (7) Orange-tip at Wareham May 25; Meadow-brown at Wareham June 15; Climabar at Wareham May 26; Brimstone at Parkstone Mar. 19 (E. R. B.).

(A) After hibernation.

270 FIRST APPEARANCES OF BIRDS, INSECTS, ETC.

ERRATA IN VOL. XXVI.

- p. 273. The date of the Field Thistle for Dorset should be June 30.
- p. 274. The date of the Cuckoo (s.) for Dorset should be April 12. See footnotes (2) and (3).
- p. 275. The date of the Brimstone Butterfly for Dorset should be March 9. See footnote (4).

SOME RECENT AND FORTHCOMING BOOKS.

- Some Dorset Manor Houses, with their literary and historical associations. By Sidney Heath. Illustrated with 40 drawings by the author, and rubbings from sepulchral brasses by W. de C. Prideaux. (Bemrose and Sons, 4, Snow Hill, London. 30s. net.) In the press.
- Wessex.—By Clive Holland. Illustrated in colour by Walter Tyndale. (A. and C. Black, Soho Square, London. 20s. net.)
- Memorials of Old Dorset.—Edited by the Rev. T. Perkins. (Bemrose and Sons. 15s. net.) In preparation.
- The Old Stone Crosses of Dorset, with an Introduction and descriptive articles by Alfred Pope. Illustrated with numerous plates and a key-map of the county. (Chiswick Press, London. 15s. net.)
- The Three Dorset Captains at Trafalgar—Thomas Masterman Hardy, Charles Bullen, Henry Digby.—By A. M. Broadley and R. G. Bartelot. (John Murray, Albemarle Street, London. 15s. net.)
- Brownsea Island.—By Charles van Raalte. With illustrations in colour by Florence van Raalte. (A. L. Humphreys, 187, Piccadilly, London. 12s. net.)
- Bird Life and Bird Lore.—By R. Bosworth Smith. (John Murray. 10s. 6d. net.)
- Dorset Parish Registers.—Marriages. Edited by W. P. W. Phillimore and Edmund Nevill. Vol. I. contains a transcript of the Marriage Registers of Powerstock and West Milton, Milton Abbey, Beaminster, Mapperton, Cattistock, Bothenhampton, Walditch, Bradpole, North Poorton, Chilfrome. (Phillimore and Co., 124, Chancery Lane, London. 10s. net.)
- The Hardy Country.—Literary landmarks of the Wessex novels. By C. G. Harper. With illustrations. (A. and C. Black. 6s.)
- Highways and Byways in Dorset.—By Sir Frederick Treves. With illustrations by Joseph Pennell. (Macmillan and Co., London. 6s.)
- The Wessex of Thomas Hardy.—By B. C. A. Windle. Illustrated by E. H. New. (John Lane, The Bodley Head, London. 5s. net.)
- Dorset.—By Frank R. Heath. With numerous illustrations. (Methuen and Co., 36, Essex Street, London. 2s. 6d.)
- Black's Guide to Dorset.—New edition. Edited by A. R. Hope Moncrieff. With maps, plans, and illustrations. (A. and C. Black. 2s. ℓ d.)
- Dorchester and 1ts Surroundings.—By F. R. and Sidney Heath. (The Homeland Association, 22, Bride Lane, Fleet Street, London. 1s. net.)
- Famous Beauties of Two Reigns, being an account of some fair women of Stuart and Georgian times. (Anne Seymour Damer and Elizabeth Brinsley Sheridan are included.) By Mary Craven. With 21 plates. (Eveleigh Nash, London. 21s. net.)

272 SOME RECENT AND FORTHCOMING BOOKS.

- A Manual of Costume as illustrated by Monumental Brasses.—By Herbert Druitt. With 110 illustrations. (The De La More Press, 32, George Street, Hanover Square, London. 10s. 6d. net.)
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(Particulars of new books, especially of those relating to Dorset, should be sent to the Editor.)



INDEX TO VOL. XXVII.

Abbotsbury Abbey, 2	Cerne Abbey, 2
Abbott, Dr., xxxii.	Chantries, Dorset, 214
Aciand, Capt., xxx., xxxiii., 239	Bridport, 225, 228
Aldis, T. S.,, xxviii.	Dorchester, 216
Arachnida, British, xxxiv., 72	Pimperne, 221
List of New and Rare,	Shaftesbury, 218
73, 81	Whitchurch, 223
Notes and description of, 83	Chimæroid, New, 181
Badbury Rings, 1.	Church Bells of Dorset, 93
Bankes, Mrs. W. R., lii., lvi.	ante-Reformation bells,
Albort lii lui	93
Albert, lii., lvi.	
E. R., 259	Addenda and Corrigenda,
Barnes, F. J., xxviii., xxxi., xxxvii.,	105 Tint of in 1550, 101
183	List of, in 1552, 121
Rev. W. Miles (Vice-President),	Churchwardens' accounts,
xxx., xxxvii., xl., 44, 97	127
Bath, Marquis of, lvii.	Coins, Roman, xxvii.
Beckford, F. J., xxviii.	Coprolites, xxviii.
Bindon Abbey, xl., 2	Copyright, law of, xxix.
Birds, First Appearance of, 259	Cornish, Vaughan, xxx.
Avocet, 261	Crallan, Dr., xxxiv., 176
Bittern, common, 262	Curtis, W. Parkinson, xxxvi., 189
Buffon's Skua, 261	D'Aeth, Rev. W. H., 259
Cuckoo, 261	Dale, C. W., lx.
Gull, Little, 261	Dicker, C. W. H., xxxi.
House Martin, 261	Dorset Chantries, 214
Heron, Squacco, 262	Rainfall (1915), 138
Kingfisher, 261	Songs, old, 24
Nuthatch, 260	
Pied Flycatcher, 260	Agricultural, 28 Ecclesiastical, 25
Redstart, 260	General, 31
Robin, 260	Nautical, 29
Rook, 261	Political, 23
Tables, 268	Duke, H., xl.
Thrush, 260	"Durnovaria," "Durotriges," mean-
	ing of verili
Woodchat, 260 Woodcock, 261	ing of, xxxiii. Effigies, cross-legged (Dorset), 1
Woodpecker, green, 261	
lesser spotted, 261	Bridport, 8, 9, 10,
Woodpigeon, 261	Dorchester, 9, 15,
Blandford, Dr., lxii.	
Bloxham, M. H., 1	16, 18 Frampton, 21
Books, Recent and Forthcoming, 271	
Boulger, Professor, xxix.	Horton, 9, 13, 23
Botanical Notes, 264	Mappowder, 15,
	21 Wilton Allen 00
Fungus, rare, 264	Milton Abbey, 20
Daphne Laureola, 265	Puddletown, 9,15,
Elcampane, 265	23
Primroses, 265	Stoke Gaylard, 23
Salix Cinerea, 265	Trent (Som.), 9,
British Association, Report of dele-	15, 19, 22, 23
gate, xxviii.	Wareham, 9, 10,
Cambridge, Rev. O. P. (Vice-President),	12, 14
Connon Poll found of Padingle	Wimborne—
Cannon Ball found at Radipole, xxvii.	St. Giles, 23
Cecil Medal, xxxvi.	Minster, 9, 23

Electricity, applied to domestic purposes, xxxvi.

Elwes, G. R. (Hon. Treas.) xxxi., Peck, G. R., 259

Peck, G. R., 259 poses, xxxvi.
Elwes, G. R. (Hon. Treas.), xxxi.,
xxxiv., xxxv., xxxvi., lii., lvii.
Filleul, Rev. S. E V., xliii. Pentin (Editor and Secretary), xxxi., xxxv., xxxv., xxxvi., xxxvii., xxxix., Financial Statements, lviii., lix. xliii., 24 Fletcher, W. J., l., li., lvi. J. M. J., l. Perkins, Rev. T., xlvii. Plants, Earliest Dorset Records (1905), Fossil (Ischyodus townsendi), xxxi., 181 (Pycnodonts), 183 267 Plants, native, preservation of, xxix. Frome (Som.), lvii. Pomegranates, xxvii. Fry, E. A., 214 Ponton, A. C., xxxi. Pope, Alfred, xxix., xxxii., xxxv., lii. Prideaux, C. S., xxviii. W. de C., 234 Hardy, Thomas, xxxix. Hartshorne, A., 1, 4
Heath Sidney, 1
Heriz Smith, Rev. E., lii.
Hudleston, W. H., xxxviii., xlvi.
Inkstone, Japanese (Tan-kei), xxvii.
Insects, First Appearance of, in Dorset,
1905, 269
Ischyodus Townsendi, 181 President's Address, xxxv., lx. Archæology, lxxxiv. Astronomy, lxxiii. Botany, lxviii. Chemistry, lxxviii. Electricity, lxxvii. Johnson, Rev. I. J., lxii. Engineering, lxxx. Geography, Ixxii.
Geology, Ixix.
Zoology, Ixii.
Publications of the Club, xxvi. Kingston Lacy, lii. Longleat (Som.), lvii. Lulworth Castle, xliii. Louterell Psalter, xlv. Will of John Turber-Pycnodont Fish, 183 ville, xlv. Radiography, chromatic, xxxi. Rainfall Returns, 138 Macdonald, Dr., xxxv. Observers' notes, 139 Mainwaring, Colonel, xxviii., xxxi., Tables, 142 XXXV Mansel-Pleydell Medal, xxxvi. Steepleton Manor, temper-J. C. M., Rev., xxvii. ature, &c., 146 Reports, Secretary's, xxxvi March, Dr. Colley, xxix., xxx., xxxi., 1, 239 Treasurer's, xxxvi. Richardson, N. M. (President), xxvii., Mary tokens, xxxi. Winter Session, xxxii., xxxv., l., li., lx., 259 Meetings, xxvii., xxxi., (Annual), xxxv. Ridley, Rev. J., 259 Summer (Wool), xxxix., (Wimborne, Badbury Ringed Plover (Ægialitis hiaticola), xxxvi., 189 Rings, Kingston), xlvii. Breeding Season Habits, (Frome and Longleat), 205 Eggs, The, 209 lvii. Members, Honorary, x. Enemies, 211 Familiar Names, 199 Limitation of number, xxxv. List of, xi. Food, 202 New, xxii. Habits, General, 210 Nest, The, 203 Original, lxii. Memorial Brasses of Dorset (Part III.), Observations, General, 212 234 Yetminster-Plumages, 199 Horsey, Sir John and Lady, 234 Military Arms Inn, Weymouth, photo. Range, 202 Synonomy, 193 Rodd, E. S., 259 of weathered stonework, xxxii. Roman Pavements, 239 Milton Abbey, 2 Monastic sepulchral cross, xxxi. Moorhead, Dr., xxxv. Amphoræ, 249 Asymmetry, 256 Duplex, The, 249 Mortar, old, parallel banding in, Etruscan, 252 xxxii. Fecundity, Symbols, Moule, H. J., 18 250 Fret, The, 248 Fylfot, The, 249 Officers of the Club, x., xxxvii. Ophiodes or Pseudophia Lunaris, life history of, xxxiv., 176 Interlaced Designs, 248

Roman Pavements-continued. Meander, The, 248 Serpents, Christian, 253 Pagan, 254 Symbolism, Art, and Beauty, 257 Tesserse, Material of, 247 Relics, xxviii. Roads, li., lvi. Rules of the Club, v. Sherborne Abbey, 2 Short, E. W., xxxvi. Snail Shells, xxviii. Societies, corresponding, xxvi.
Kindred, affiliation of, xxxv. Solar Eclipses, photographs of, xxxv. Stephens, W. L., xxviii. Stilwell, H., 139 Stones, ancient (Stinsford and Bat-·combe), xxxii. Stuart-Gray, M. G., xxxv. Surface waves produced by sledges, Sykes, E. R., xxviii., xxxvii. Torpedo Ray fish, xxviii. Treasure Trove, law of, xxix. Turner, Dr., lxi. Usherwood, Canon, xxviii. Vice-Presidents of the Club, x.

Waller, J. S., 1, 7 Wareham Water Supply, 147, 164 History of operations, 158 Waugh, W. R., lxi. Weather Notes, 265 Aurora Borealis, 265 Buckhorn Weston, 265 Chard, 265 Pulham, 265, 266 Weaver, F. W., xxxix. Wimborne Minster, xlvii., 2 Winterborne Waste (Monkton), Court Rolls of, xxx., 44
Woodhouse, Miss E. E. W., 259
Woodward, Dr. Smith, xxxi., 181, 183 Wool, Manor House and Barn, xxxix. Church, xliii. Worgret Hill and Dykes, 148, 149 Geological position of, 151, 159 Structure of, 169 Zoological Notes, 262 Bat, 262 Bee, Humble, 263 Blindworm, 262 Lepidoptera, Scarcity of, 263 Sawfly, Gooseberry, plague of, 263 Viper, small red, 262



A GENERAL INDEX OF THE PAPERS, &c., PUBLISHED IN THE CLUB'S "PROCEEDINGS."

By HARRY POUNCY, Assistant-Secretary.

A

Abbotsbury Abbey, Vol. VIII., p. 38.

- ,, Antiquities, I., 50.
- ,, Castle, Rare Trees in the Garden of, XV., 184.
 - Iron Deposits, VIII., 64.

Adam and Eve Dishes, II., 112.

Adders, British, Colour Variations of, XXII., 43.

Alaska, Natural History of, XXV., 8.

Albian Fossils found at Okeford Fitzpaine, XVIII., 66.

Aldhelm's Chapel, St., XIV., 75.

Altars, Mediæval, in Salisbury Cathedral, XIX., 1.

Ammonites, New Species of, IV., 137.

Amphitheatre, Dorchester, VII., 66.

Anæmia in Oats, V., 91.

Antoninus, Iter XV. of the Itinerary, IV., 122.

,, ,, XVI. ,, ,, IV., 62.

" Recollections of Walls of Hadrian and, XIV., 29.

Arachnida, see "Spiders."

Arms of Dorchester and Dorset, XVIII., 100.

Astarte, Species of, II., 79.

Athelhampton Hall, XX., 122.

Australia, the Naturalist in, XXVI., 160.

Axminster Church, XXV., lxxi.

B

Bactrian Coins, XXV., xxvi.

Badbury Rings, V., 38; XI., 16; XXVII., l.

,, Roman Road from, to the Wiltshire Boundary near Ashmore, IX., 147; XXVII., li.

Bagber, Romano-British Brick Kiln and British Barrow at, XVII., 127.

Barnes, Rev. W., B.D., In Memoriam, VIII., xv.

,, ,, Chronological List of Works of, VIII., xxvii.

Barnestone Manor House, Purbeck, XXII., lx.

Barrows of Dorset, V., 20.

, Exploration at Martinstown, XXV., xxvii.; XXVI., 6.

```
Bath, XXVI., lii.
   ,, Abbey Church, XXVI., lv.
      The Roman Baths, XXVI., liii.
Beets, Ennobling of, III., 104.
Belemnoteuthis Montefiorei, III., 141.
Belgæ in South Britain, VI., 33.
Bells of Dorset, Church, XIX., 25; XXIV., 103; XXV., 33; XXVI., 204;
          XXVII., 93.
         Gussage All Saints, XVII., 80.
Bere Regis, VIII., 49.
Bibles, Early English Printed, XXI., 193; XXVI., lxxii.
Bindon Abbey and Wool Bridge, VII., 54; XXVII., xl.
       Hill, IV., 53.
Birds, Observations on the Appearances of, X., 214; XI., 217; XII., 195;
         XIII., 239; XIV., 201; XV., 195; XVI., 185; XVII., 197; XVIII.,
         185; XIX., 202; XX., 182; XXI., 236; XXII., 147; XXIII., 209;
        XXIV., 178; XXV, 275; XXVI., 266; XXVII., 259.
Bivalve Shell of a New Genus (Curvirostrum striatum), IV., 102.
Blashenwell, Tufaceous Deposit at, VII., 109; XVII., 67.
Bloody Cave at Bradford Abbas, V., 34.
Bloxworth Church, VII., 99.
                   Ancient Hour-glass and Stand, III., 34.
                   Armorials of Savage Family, X., 153.
           Effects of a Flash of Lightning at, VIII., 74.
                    Whirlwind at, XVII., 76.
Bockley, or Bockerley, Dyke, and others in Dorset, V., 49; VI., 41.
Bos primigenius, with relation to Palæolithic and Neolithic Man, X., 81.
Botanical Notes, 1906, XXVII., 264.
Botany (chiefly Geographical) Notes, X., 47.
       of a Dorset Parish, II., 32.
       Dorset Plants, XXVI., 75.
Bound Oak., III., 25.
Bournemouth, Geology of, VII., 28.
              Leaf Beds, XVI., 178.
Bracelet, Supposed Saxon Workmanship, I., 38.
Brachiopoda from Inferior Oolite of Bradford Abbas and its Vicinity, I., 73.
                                  Dorset and a Portion of Somerset, IV., 1.
                    ,,
Bradford Abbas, on the Fossil Beds of, I., 64.
                and Diggings at East Farm, II., 53.
         on Avon, XXVI., xlviii.
Brasses of Dorset, Ancient Memorial, XXIII., 195; XXV., 144; XXVII., 234.
       in Fleet Old Church, XIX., 59.
```

Brick Kiln and British Barrow at Bagber, XVII., 127. Bridport Corporation Records, XI., 97; XXV., lix.

Geology, XI., 109.

. Digitized by Google

Bridport Harbour, the Fault in Cliff West of, XI., 118.
Britford Church, Salisbury, XXII., lxx.

Bronze, Notes on, XXI., 40.

,, Implements found at Lulworth, XXV., xxiii.

Brownsea Island, XXVI., lxi. and 187.

Buckland Newton, Parish Register of, X., 97.

Buckman, Professor, In Memoriam, VII., 1.

Burning Cliff at Holworth, XXV., xl.

Buzbury Encampment, IV., 95.

C

Canada, Snows of, XXIII., 58.

Canford Church, X., 146.

Castoridæ, Castor Fiber, XVI., 163.

Cattistock Old Church, XXIII., lvi.

Cerne Abbey, XXII., xl.

- ,, ,, Barn, X., 187; XXII., xliii. and 64.
- ., Book of, XXI., 158.
- ,, Church, XXII., xxxix.
- ,, Giant, XXII., xliii. and 101.

Chalbury Rings and Rimbury, XXI., 188.

Chantries of Dorset, XXVII., 214.

Charles II. in the Channel Islands, XXV., 172.

" Dorset, VIII., 9; XXV., xlviii.

Charlock, Remarkable Deformity in, XII., 157.

Charmouth, King Charles II. at, XXV., lx.

Chelonian Reptile from the Middle Purbecks (Fossil), VI., 66.

Cherry, on the, II., 76.

Cherry Tree at Over Compton, II., 93.

Chesil Beach, XXIII., xliii.; XXIV., 1; XXVI., lxv.

- .. Fish Recently Taken on the, X., 162.
- ,, Grading of the Shingle, XIX., 113.
- .. Movements of Load of Brickbats, XXIII., 123.

Chickerell Church, XIX., 55.

Fossil Crocodile at, XX., 171.

Chimeroid Fin-spine from the Portland Stone, XXVII., 181.

Church Bands, the Old, of the Past Century, XXVI., 172.

- ,, Bells of Dorset, XIX., 25; XXIV., 103; XXV., 33; XXVI., 204; XXVII., 93.
- ., Goods of Dorset, 1552, XXV., 196; XXVI., 102.

Churches in Dorchester Rural Deanery (Dorchester portion), Historical and Descriptive Sketch, XII., 36.

Churchills and Digbys. Minterne, Its Connection with the, X., 89.

Cimoliosaurus Richardsoni, Lydekker, n. sp., X., 171.

Clausilia Rolphii (new to Dorset), XIX., 109.

Coal in Dorset, XXII., lxvii.

Coast Changes, XX., 109.

Contoured Maps, on the Reading of, XXIII., 41.

Coombe Pyne, XXV., lxx.

Coram, Captain Thomas, and the Foundling Hospital, XIII., 144.

Cornbrash of Closworth, Note on a Gavial Skull from the, I., 23.

" Sections in Dorset, I., 22.

Coronella lævis, VII., 84.

Corton, VIII., 71.

,, Ancient Free Chapel, XV., 164.

Courts of Law holden in Weymouth and Melcombe Regis in XVI. and XVII. Centuries, I., 15.

Cranborne, Castle Hill, XI., 148.

- ,, and Tewkesbury, Ancient Connection between, VIII., 29.
- " Chase, XXIII., xxxiii.
- " Manor House and Church, XXIII., xxxv.
- " So-called Castle, IV., 134.

Creech Barrow, XXII., liv.; XXIII., 146.

Cromlech, Notes on the Portesham, II., 104 (see "Helstone").

Cross-legged Effigies in Dorset, XXVII., 1.

Cumming, M.D., William, XXIV., 34.

D

Daniel Defoe in Dorsetshire, I., 67.

Decoys and Swan Marks, VIII., 1.

Dewlish Elephant Bed, XIV., 139.

, Elephas Meridionalis, found at, X., 1.

Digbys. Minterne, Its Connection with the Churchills and, X., 89.

Dinosaur (Ignanodon?) Footprints from the Purbeck Beds of Swanage, XVII., 115.

Dog Violet, Note on, I., 36.

Domesday, Notes on a Book called, belonging to the Mayor and Corporation of Dorchester, XI., 34.

Dorchester, Antiquities of, XVI., 150.

- " Amphitheatre, VII., 66.
- ., Arms of, XVIII., 100.
- " Bronze Hair Pin from, IV., 104.
- . Churches in Rural Deanery of, XII., 36.
- .. History of, XX., 123.
- ,, Human Remains found at Wareham House, XIV., 105.
- .. Notes on Book called Domesday, XI., 34.
- ,, Minute Book belonging to Corporation, X., 71; XV., 142.
- Roman Defences, XII., 135.
- " Saxon Pendant, II., 109.
- ,, Water Supply of Ancient, XXII., 80 and 84.

Dorset Brasses, Ancient Memorial, XXVII., 234.

- ,, Burial, Death, and Marriage Customs and Superstitions, XIV., 182.
- ,, Chantries, XXVII., 214.
- ,, Dialect: Poems in the, by Rev. Wm. Barnes, XXVI., 222.
- ,, Gaol and the Monmouth Rebellion, XXV., 140.
- " Songs, Old, XXVII., 24.

Dotterell in Dorset, VI., 29.

Downton Church, XXII., lxxiv.

,, Moot, XXII., lxxv.

Druidical Circle, Megalithic Remains at Poxwell, VI., 55; XXI., 150.

Dungeon or Dunset Camp, XXI., 203.

Durden, of Blandford, In Memoriam, the late Mr., XIII., xvii.

Durnovaria, Walls and Gates of, XIV., 44.

E

Earthquakes Volcanoes and, VII., 5.

Earwig, the Great, VIII., 61.

Effigies in Dorset, Cross-legged, XXVII., 1.

Eggardun, Hill Fortress, Critical and Material Examination, XXII., 23. Eggerdon and British Tribeship, V., 40.

,, Hill, Its Camp and Its Geology, XX., 174.

Elephas meridionalis, found at Dewlish, X., 1.

Ellesdon's Farm, XXV., lx.

Ellingham Church, XV., 13.

Epischnia Bankesiella, Moth New to Science, from Portland, X., 192.

Eponymous Families of Dorset, XXII., 119.

Ergot, VIII., 67.

Erosion of Coast near Weymouth, X., 180.

Evershot Church, XVII., 64.

Exeter, XXII., xliv.

F

Fairy Pipes, on so-called, II., 28.

Fiddleford, XVI., 55.

Fifehead Magdalen, XXIV., xxxix.

., Neville Roman Villa, XXIV., lxxiv., 172.

Fish of Dorset, Habits, Mode of Capture, &c., XVIII., 1.

" Recently Taken on Chesil Beach, X., 162.

Fitz Grip, Barony of Wife of Hugh, XIV., 114.

Fleet, The, XXVI., lxv.

, ,. Flora, XXVI., 251.

,, Geology of the District, XXVI., lxv.

,, ,, Tides of, XXVI., lxviii.

Old Church and Its Brasses, XIX., 59.

Flint Implements found at Portesham, XVII., 192.

Flint Plateau Flint Implements, XIX., 130.

,, Worked, II., 97.

Flora, British, Climatological and Geological Changes, XXI., 1.

- ,, of the Chesil Bank and Fleet, XXVI., 251.
 - , ,, Dorset., XV., 74.

Flowering of Plants, Observations on, X., 214; XI., 217; XII., 195; XIII., 239; XIV., 201; XV., 195; XVI., 185; XVII., 197; XVIII., 185; XIX., 202; XX., 182; XXII., 236; XXII., 147; XXIII., 209; XXIV., 178; XXV., 275; XXVI., 266; XXVII., 259.

Folk Speech and Superstitions, Dorsetshire, Relating to Natural History, X., 19. Forde Abbey, IX., 136.

Fordington, Notes on the Manor of, XIII., 152.

,, St. George, V., 91.

Fossil Beds of Bradford Abbas, I., 64.

- ,, Crocodile (Steneosaurus) at Chickerell, XX., 171.
- " Cycads, II., 1.
- Reptiles of Dorset, IX., 1.

Fossils from the Upper Greensand, in Dorset County Museum, XVII., 96.

Frampton Church, XXIII., li.

Frome Valley, XXIII., l.

., Vauchurch, XXIII., lii.

Fuddling Cup, XXIV., xxvi.

G

Gåndhåra Sculptures, XXIV., 93.

Gasteropods, Series of Sinistral, III., 135.

Gavial Skull from Cornbrash of Closworth, I., 28.

Geology of Bournemouth, VII., 28.

- " Bridport, XI., 109.
- ,, Creech Barrow, XXII., liv.
- " Eggardon Hill, XX., 174.
- ., Fleet District, XXVI., lxv.
- ,, Osmington Coast, XXV., xl.
- Portesham and District, XXIV., 194.
- ,, Portland, VI., 58.
- " Purbeck, XXIII., 146.
- ,, Shaftesbury and District, XXIV., 59.
 - , Vale of Wardour, V., 57.

Gillingham, New Ichthyopterygian from Kimmeridge Clay of (Ophthalmosaurus Pleydelli), XI., 7.

Glaciation South of the Thames, XIX., 130.

Glanvilles Wootton Church, XXI., 210.

- ,, ,, Manor House Collections, XXI., 223.
- ,, Round Chimneys, XXI., 218.

Glass Rope Sponge, II., 21.

Glass Bottles Stamped, I., 59. Glastonbury Lake Dwellings, XIX., 172. Gold Ornaments, Ancient, IV., 158. Gussage St. Michael Church and

All Saints' , XVII., 80.

н

Hadrian and Antonine, Walls of, XIV., 29.

Hairpin, Bronze, from Dorchester, IV., 104.

Hambleton Hill, XVI., 156.

Hampshire Manor House, a By-road to History, XV., 1.

Hazelbury Bryan Parish Church, XIV., 95.

Helstone on Ridge Hill, Portesham, II., 104; XV., 52; XVI., 175.

Histionotus angularis, XI., 91.

Histories of Dorset, XXIV., xxx.

Holme Priory, XI., 142; XIV., 108.

Horseshoes, XXI., 137.

Hourglass and Stand in Bloxworth Church, III., 34,

", ", Easthope" , Much Wenlock, Shropshire, IX., 127. Hours of the Virgin, Manuscript Book, XIV., 80.

ı

Ichthyopterygian from Kimmeridge Clay of Gillingham, XI., 7.

Inquisitiones Post Mortem for Dorset:-

from Henry III. to Richard III., XVII.. 1.

,, Henry VII. to Charles I., XX., 23.

Insects, Observations on the Appearances of, X., 214; XI., 217; XII., 195; XIII., 239; XIV., 201; XV., 195; XVI., 185; XVII., 197; XVIII., 185; XIX., 202; XX., 182; XXI., 236; XXII., 147; XXIII., 209; XXIV., 178; XXV., 275; XXVI., 266; XXVII., 259.

Iron Deposits, the Abbotsbury, VIII., 64.

Iwerne Church, XVI., 44.

,,

J

John, Dorset and King, Notes on Pipe Rolls, XV., 117; XVI., 129; XIX., 65.

, King John's House, Cranborne, XXIII., xxxiii.

., ., Tollard Royal, XXIV., 10.

Jordan Cliff, Landslip on, XXII., 91.

Journal of Excursion to Eastbury and Bristol, 1767, Sir Joseph Banks, Bart., XXI., 143.

Jupiter, Markings of, XXII., 56.

K

Kimmeridge Coal Money and other Articles manufactured from Kimmeridge Shale, XIII., 178. Kimmeridge Shale, XV., 172.

Kingston Lacy, XI., 159; XXVII., lii.

Knowlton Church and Earthwork, XVII., 135.

L

Lake Dwellings at Glastonbury, XIX., 172.

Lamprothamnus Alopecuroides (Braun) in Dorset, XIII., 163.

Landslip at Dowlands, XXV., lxviii; XXVI., 182.

Langton Herring, XIV., 165; XXVI., lxiii.

,, ,, Cross, XXVI., lxiii.

Lavatera silvestris, VI., 74.

Leafbeds, Bournemouth, XVI., 178.

Leersia oryzoides, Order Oryzeæ, a grass new to Dorset, XIX., 106.

Leigh Maze or Mizmaze, IV., 154.

· Lepidoptera, Dorset, Rare and Local lately found, VIII., 55.

" Two Species New to Science:—

Gelechia Portlandicella and Nepticula auromarginella, XI., 174.

, in 1891, XIII., 168; in 1896, XXVII., 263.

,, Epischnia Bankesiella, a Species New to Science, XV., 59.

, Hypena Obsitalis (Hübner), Deltoid Moth New to Britain, VI., 70.

., Lycana Argiades (Pall), Butterfly New to Britain, VII., 79.

,, Moth New to Britain, Occurrence in Dorset of Butalis Siccella, Zeller, IX., 118.

, ,, On Case of Apparent Substitution of Wing for Leg., XI., 64.

, Moths, Dorset Clothes, and Their Habits, XVIII., 138.

,, Portland, I., 54; XI., 46; XVII., 146.

Purbeck, VI., 128; X., 197.

,, Tinea subtilella, a species new to the British Fauna, XII., 161.

Tinea vinculella, a Species New to British Fauna, XVI., 81.

Lightning at Bloxworth, Effects of a Flash of, VIII., 74.

Liscombe: Its Chapel, Monastic House, and Barn, XXVI., 1.

Littorina rudis, Monstrosities of, XIII., 191.

Longford Castle, Salisbury, XXII., lxxii.

Lulworth ,, XIII., 140; XXVII., xliii.

Lunar Cruciform Halo, XXVI., xxxiv.

" Rainbow, Double, XXIII.,, xxx.

Lyme Regis, XXV., lxiv.; XXVI., 182.

Lynchets, Problem of, XXIV., 67; XXV., xxx.

M

Maiden Castle, XIV., 55; XXIV., xxxiv.

.. Newton, XXIII., liii.

Mammalia of Dorset, XXIV., 18.

```
Mansel-Pleydell, J. C. Esq., In Memoriam, XXIII., lxii.
                            Presentation of Testimonial to, XVI., xlvii.
                            The Memorial Fund, XXVI., xxix.
Maples in Sherborne Park, I., 33.
Mapperton, XX., 167.
Maps of Dorset, XXIV., xxxii.
Marshwood and Greensand Hills of Vale of, XVIII., 174.
Martin family, Effigy of Member of, Puddletown Church, XIX., 150.
Martinstown: Barrow Digging, XXV., xxvii.; XXVI., 6.
Massachusetts, U.S.A., Dorset Colony, IX., 100.
Maze or Mizemaze at Leigh, IV., 154.
Meteors, November, XX., 99.
Meteorological Notes, 1906, XXVII., 265.
Milborne Port Church, XIV., 70.
                      XXIV., lxii.
Milton Abbas
      Abbey
                      IV., 78; XXIV., lxv.
              Declaration of Indulgence, XXV., 187.
Milton Abbey, Incised Slab, XXV., 191.
              Legend of, XVI., 159.
         ,,
              Old Town, XXV., 1.
  ,,
         ,,
              Some Antiquities, XXVI., 195.
  ,,
              St. Catherine's Chapel, XXIV., lxii.
Minterne Church, XXII., xxxiv.
         Its Connection with Churchills and Digbys, X., 89.
         House Tapestry, XXII., xxxvi.
Missel Thrushes, Nesting of a Pair at Montevideo, Chickerell, XXIII., 67.
Mollusca, Land and Freshwater, VI., 76, 178.
         from a Raised Beach at Portland, XVI., 171.
Monmouth's Rebellion, Rebels in the Duke of, V., 99.
                      Dorchester Gaol and the, XXV., 140.
Montevideo, Chickerell, Collections at, XIX., 154; XXVI., lxix.
Morel, the, III., 36.
Morton, Cardinal, III., 49.
```

N

Natural History Notes, XIX., 43.
,, ,, of Alaska, XXV., 8.
Naturalist in Australia, XXVI., 160.
Naturalist's Calendar for Dorset, Construction of, IX., 130.
Neolithic Kitchen Midden at Blashenwell, XVII., 67.
New Forest, XIV., 62.
Newton Manor, Swanage, XVIII., 45.

Mosses of a Dorset Parish, V., 150.

Mycetozoa, XIII., 130.

Oidium Balsamii, IV., 110.

Okeford Fitzpaine, Albian Fossils discovered at, XVIII., 66.

", Church, XXIV., lxxiii.

", ", Recent Discoveries at, IV., 91.

Old Dorset Songs, XXVII., 24.

Old Glass Bottles from Thornford, I., 89.

Oolite Beds of Sherborne, a Cone from the Inferior, V., 141.

,, Top of the Inferior, &c., XIV., 37.

Ophiodes or Pseudophia Lunaris, XXVII., 176.

Ophiurella, a New Species of, IV., 56.

Ophthalmosaurus Pleydelli, New Ichthyopterygian, XI., 7.

Osmington Church, XXV., xxxix.

Over Compton, On the Cherry Tree at, I., 93.

P

Pagan-Christian Overlap, XVIII., 116.

Parnham, XXI., 229.

Parsnips, on Ennobling of Roots, IV., 105.

Pavements, Roman, XXVII., 239.

Peat Mosses, Charred Pinewood from Dorset, XVI., 14.

Pennsylvania Castle, XXIII., xlvii.

Perseus, New Star in Constellation, XXII., 53.

Phalangidea, or Harvest Men, British Species of, XI., 163.

Phoenician Commerce, Colonisation, and Enterprise, Influence on England, XX., 113.

Pholidophorus, Mesozoic Ganoid Fish, from Chickerell, XVIII., 150.

Photographic Surveyof County, XV., 18.

Piddletown Church, Effigy of a Martin, XIX., 150.

Pillesdon Manor, VII., 106.

Pilsdon, VII., 102; XIX., xxxi.

Pipe Rolls of Dorset, XIV., 119; XV., 117; XVI., 129; XIX., 65.

Plantago coronopus, var. ceratophyllon, Rapin, XVII., 87.

Plateau and Valley Gravels, Sarsen Stones at Littlebredy and Elsewhere in the County, XVI., 75.

Flint Implements, XIX., 130.

Plush, XV., 55.

Poole, Town Cellar, or Church of Monastery of St. Clement's and other Buildings, IX., 78; XXVI., lix.

Portesham Cromlech, or Helstone, II., 104; XV., 52; XVI., 175.

,, Flint Implements, XVII., 192.

Geology of District, XVII., 194.

Portland, Ancient Interment on The Verne, XIII., 232.

,, Geological Notes on the Island, VI., 58.

" Historical " : Descent of Manor, &c., XII., 115.

Portland, Lepidoptera of, I., 54; X., 192; XI., 46; XII., 161; XVII., 146.

- ,, Pennsylvania Castle, XXIII., xlvii.
- " Raised Beach, XXIII., xlvi.
- ,, Ruined Churches of St. Andrew, XIX., 123.
- ,, Stone Quarries, XII., 187; XXIII., xlvi.
- ,, ,, New Chimæroid Fin-spine from the, XXVII., 181.

Potato Disease, IV., 116.

Pottery and Brick-making, Historical Dissertation on, XVII., 127.

Poundbury, Pastoral Camp and Old Dunium of Ptolemy, XVI., 48.

Powerstock Church and Castle, XX., 137.

Poxwell, Druid's Temple or Druidical Circle at, VI., 55; XXI., 150.

Preston, Roman Pavement, XXI., 205.

Pseudophia Lunaris, XXVII., 176.

Punfield Cove, Beds of, VII., 43.

Purbeck Geology, XXIII., 146.

- Lepidoptera, VI., 128; X., 197.
- ,, Wild Flowers in December, XI., 82.

Pycnodont Fish of the Genus Mesodon, XXVII., 183.

R

Rainfall, Dorset Monthly, XVIII., 153.

,, Report on the Returns: - X., 214; XI., 217; XII., 195; XIII., 239; XIV., 201; XV., 195; XVII., 17 and 195; XVII., 210; XVIII., 195; XIX., 161; XX., 81; XXI., 111; XXII., 68; XXIII., 134; XXIV., 56; XXV., 129; XXVI., 88; XXVII., 138.

Rampisham, XXIII., lv.

Reptiles of Dorset, XV., 90.

Ridgway Fault, X., 55.

Rimbury, XXI., 188.

Ringed Plover (Aegialitis hiaticola), XXVII., 189.

Ringstead Church, XXV., 44.

Roe-deer (Capreolus Caprea), History, Recent and Palæontological, XXIII., 1.

Rolls of the Court Baron of the Manor of Winterborne Waste, XXVII., 44.

Roman Amphora or Wine Jar, XI., 88.

- ,, Fortification, with Special Reference to the Roman Defences of Dorchester, XII., 135.
- ,, Pavements and Intrecci of the Country, XXI., 162; XXVII., 239.
- ,, Pavement at Preston, XXI., 205.
- ,, Roads: Notes on So-called, V., 69.
- ,, Road from Badbury Rings to the Wiltshire Boundary near Ashmore, IX., 147.
- ,, Villa at Fifehead Neville, XXIV., 172.
- ", ", ", Thornford, I., 41.
- ,, Well at Winterborne Kingston, XI., 1.



Romano-British Relics found at Max Gate, Dorchester, XI., 78. Rooks, IX., 123.

.. Planting Acorns, XII., 132.

Roots, Ennobling of, with Particular Reference to the Parsnip, IV., 105.

Root Crops, Experiments on the Growth of, IV., 58.

Rubi, Dorset, XIV., 179.

Rubus Lately found in Dorset: Notes on Rare Forms of, XII., 71.

S

Salisbury Cathedral Church: Its Mediæval Altars, XIX., 1.

XXII., lxx.

Salts of Iron: Illustrative of Colours of Rocks, II., 63.

Sandsfoot Castle, III., 20; XXIII., 43.

Sarsen Stones at Littlebredy and Elsewhere in the County, XVI., 75.

Savage Family in Bloxworth Church, Armorials of, X., 153.

Saxon Churches, XIX., 51.

- ,, Church Architecture, XXIII., 87.
- ,, ,, Bradford-on-Avon, XXVI., l.
- ,, Pendant from Dorchester, II., 109.
- ,, Situlæ or Buckets, IV., 93.

Scorpions, British Species of False, XIII., 199.

Seeing Power of Beasts and Birds, XXIII., 53.

Shaftesbury, XV., 36; XXIV., liii.

- ,, History of, III., 27; IV., 77.
- ,, St. Peter's Church and Abbey, XXIV., hv.
- ,, Tout Hill, III., 48.
- ,, Town Hall, XXIV., lvii.

Shells, New and Rare Dorset Land, XII., 99.

Sherborne Abbey Church, XXV., li.

- ,, and School, XXV., xlviii. and 161.
- ,, Cone from Inferior Oolite Beds, V., 141.
- ,, Old Castle, XXV., liii.
- ,, Park, the Maples in, I., 33.
- ,, School, External Growth of, XII., 105.

Shillingstone, Incised Slab at, XXV., 184.

Snows of Canada, XXIII., 53.

Songs, Old Dorset, XXVII., 24.

Sorcery and Witchcraft, V., 1.

Sparassis crispa, I., 40.

Sphærella taxi, VI., 52.

Spiders, New and Rare British, IV., 147; VI.,, 1; VII., 70; X., 107; XII., 80;

XIV., 142; XV., 103; XVI., 92; XVII., 55; XVIII., 103; XX., 1;

XXI., 18; XXIII., 16; XXIV., 149; XXVI., 41; XXVII., 72.

Squirrel, Habits of the, XI., 27.

Stone Implements in the Dorset County Museum, XII., 16.

- " Marks, Local, XV., 167.
- ,, Quarries of Portland, XII., 187.

Stratton Church and Village Cross, XVI., 1.

Stuart-Gray, Presentation of Testimonial to the Hon. Morton G., XII., xxxv.

Studland, Preservation of the Church of St. Nicholas, XII., 164.

Sturminster Castle, XXIV., lxxvi.

Sun, Assistance of, in Finding Traces of Destroyed Earthworks and Buildings, XVIII., 169.

- ,, Dial, Cruciform at Dorset County Hospital, XXIII., 191.
- ,, and Moon Dial combined, XXIV., xxvii.
- ., Spots, XXV., 157.

Superstitions, Dorsetshire Birth, Death, and Marriage Customs and, XIV., 182.

Surnames, Dorset, XVII., 184.

Swan Marks, Decoys and, VIII., 1.

Swanage, Newton Manor, XVIII., 44.

Symbolism, Examples of, XXV., 17.

T

Tarrant Rushton, XVIII., 55.

Telegraph in Dorset Before the Days of Electricity, XI., 135.

Tenacity of Vegetable Life, XVII., 123.

Terebratula Morierei, III., 39 and 42.

Terraces, Hill, XXII., 91.

Tesselated Pavements, Roman, XXI., 162; XXVII., 239.

Testacella Maugei, V., 136; XXVI., xxvi.

Thornford, Old Glass Bottles from, I., 89.

Tokens, Dorset, 17th Century, IX., 40.

Tollard Royal, King John's house at, XXIV., 10.

Toller Fratrum, XXIII, liii.

Topography of Old Dorset, XXIV., xxviii.

Torquay, XXII., xlviii.

Torque, V., 47.

Tout Hill, Shaftesbury, III., 48.

Trees, Rare, in Abbotsbury Castle Gardens, XV., 184.

Trigonia bella, from Eype, Bridport, V., 153.

clavellata, II., 19.

Trigoniæ, Dorset, III., 111.

Tumuli of ... Analysis of Celtic, IX., 55.

Tyneham, XXII, lxvi. and lxviii.

U

Urns, Ancient British, XII., 180.

Ustilago segetum in Cereal Crops of 1883, V., 88.

Utricularia, British Species of, XV., 81.

Valleys in the Chalk Downs of North Dorset, Origin of, XVI., 5. Vespasian, Invasion of South-West of Britain by, VI., 18.

Volcanoes and Earthquakes, VII., 5.

W

Wardour Castle, Old, XV., 26; XXIV., lxi.

.. Geology of the Vale of, V., 57.

Wareham, Its Invasions and Battles, XIII., 82.

,, Origin and History, XV., 70.

,, Religious Foundations and Norman Castle, XIX., 82.

, Roman and the Claudian Invasion, XIII., 115.

,, Occupation of, XX., 148.

Water Supply, XXVII., 147.

Warne, Chas., Esq., F.S.A., In Memoriam, IX., xv.

Warmwell House, XXV., xlvi.

Water Analyses a Hundred Years ago, XVII., 141.

" Supply of Wareham, XXVII., 147.

Welsh in Dorset, III., 74.

Weymouth and Melcombe Regis in the 16th and 17th Centuries, the Courts of Law Holden in, I., 15.

,, Erosion of Coast near, by Action of Sea, X., 180.

Gale of February, 1899, Effect on Beach East of, XX., 179.

Whirlwind at Bloxworth, XVII., 76.

Whitechurch Canonicorum, Church of St. Candida and St. Cross, XIX., 145.

Whiteway, of Dorchester, Diary of William, XIII., 57.

,, ,, Commonplace Book of a Dorsetshire Man, XVI., 59. Wimborne Minster, XXVII., xlvii.

, Lantern Tower, X., 142.

" St. Margaret's Hospital, XVII., 109.

Winterborne Clenstone, V., 16.

,,

,,

Kingston, Roman Wall, XI., 1.

Steepleton Church, Early-sculptured Stone in, V., 81.

, Waste, Rolls of the Court Baron of, XXVII., 44.

Wise Bird, Pagan-Christian Overlap, with Dorset Illustrations, XVIII., 116.

Witchcraft and Sorcery, V., 1.

,, in Dorset, XIII., 35.

Wood, Memoir of the Late Rev. Henry Hayton, V., xiii.

Woodbury Hill, VII., 93.

Woodsford Castle, XX., 161.

Wool Church, XXVII., xliii.

" Manor House and Barn, XXVII., xxxix.

Woolbridge, Bindon Abbey and, VII., 54.

Wookey Hole, XIX., 176.

Worgret Hill and the Wareham Water Supply, XXVII., 147. Worked Flints, II., 97.

Worm, New British—Allurus tetraedus, X., 139.

Wraxhall, XXIII., liv.

Wyke Regis Church, XXIII., xxxviii.

Wynford Eagle, XXIII., lii.

Y

Yetminster Church, XII., 146.

Z

Zoological Notes, XXVII., 262.







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